

# Andrews tells the Prince — get rid of Rod Hackney

RAYMOND Andrews has accused Rod Hackney of using the techniques of a second-hand car dealer in his election campaign for the RIBA presidency — and he has told the Prince of Wales to find a new architectural adviser.

Andrews said this week that Hackney's joint "dream ticket" approach with David Rock was

By Lee Mallett

his running-mate "is known as a switched sale in the second-hand car business".

He maintains that Hackney has adopted the dream ticket tactic so that if he also wins the UIA presidency it will "enable him to travel the world... whilst David Rock assumes some special vice-president role as a 'locum' minding the shop in his absence".

According to Andrews, "the membership do not want this; they have a right to see and know who is in charge and do not want to be fobbed off by proxy because the landlord is away". Andrews also dubbed Hackney's tactic "a transparent attempt to win votes because of Rock's popularity, even though Rock came third in the RIBA Council election for president after myself and Ray Cecil".

Andrews thinks Hackney will

be spreading himself a bit thin if he attempts to be president to both UIA and the RIBA. "You can't do both at the same time," said Andrews. "You must be able to give yourself wholeheartedly."

Rock, Hackney's running-mate, was unimpressed by Andrews' allegations. "The amount of time Rod Hackney will be spending abroad with the UIA presidency is quite small and greatly exaggerated by Raymond Andrews," he said. Rock estimates that the UIA could perhaps involve 15-20 days travelling abroad in a year, and that at many of those events Hackney would also double as RIBA's president.

"Raymond is really trying to make a point where there isn't one," said Rock.

He saw nothing unusual in the president devoting some of his functions to any of the RIBA's six vice-presidents, or to the one the president regards as his senior vice-president.

"I see it as natural," he told BD.

● The Prince of Wales should drop Rod Hackney, says Andrews. He said Hackney claimed to be his unofficial "architectural adviser". But someone with a wider knowledge and fuller understanding of the profession should be appointed. "Dr Hackney's narrow experience does not accord with

the Royal family's usual standards of taking broad advice."

Andrews believed Jeremy Dixon or Bernard Hunt of Hunt Thompson would make better advisers, along with Bill Reed, Birmingham city architect and Colin Stansfield Smith, Hampshire county architect.

A Buckingham Palace spokesman would not reveal who advises Prince Charles but said: "He takes advice from number of sources and those sources are confidential."

## Insall's latest award

The repair and cleaning of the Public Record Office (library pictured) in Chancery Lane, London, has won the restoration category in the Worshipful Company of Stone Masons Awards, presented by the Duke of Gloucester on Wednesday.

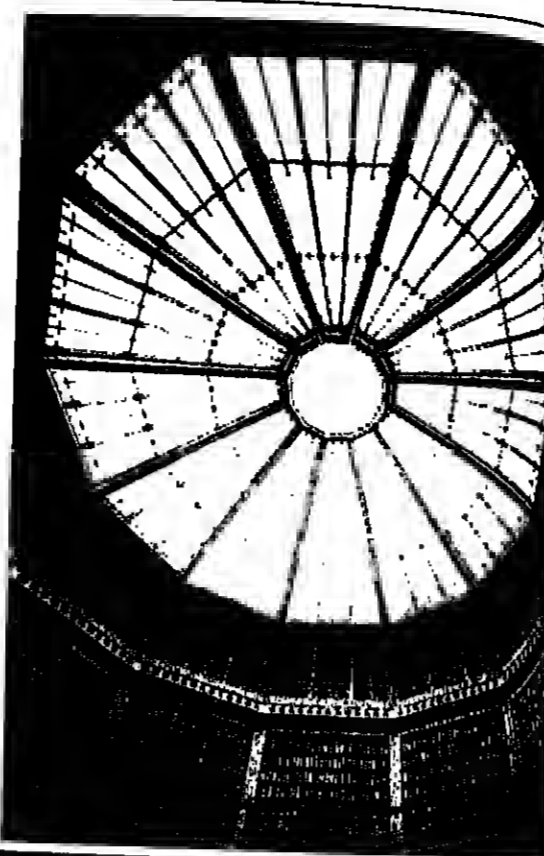
Donald Insall & Associates were architects for the Property Services Agency.

The winner of the new-build category was the five-storey Friary Court offices in the City, designed by Chapman Taylor.

## New Oldham

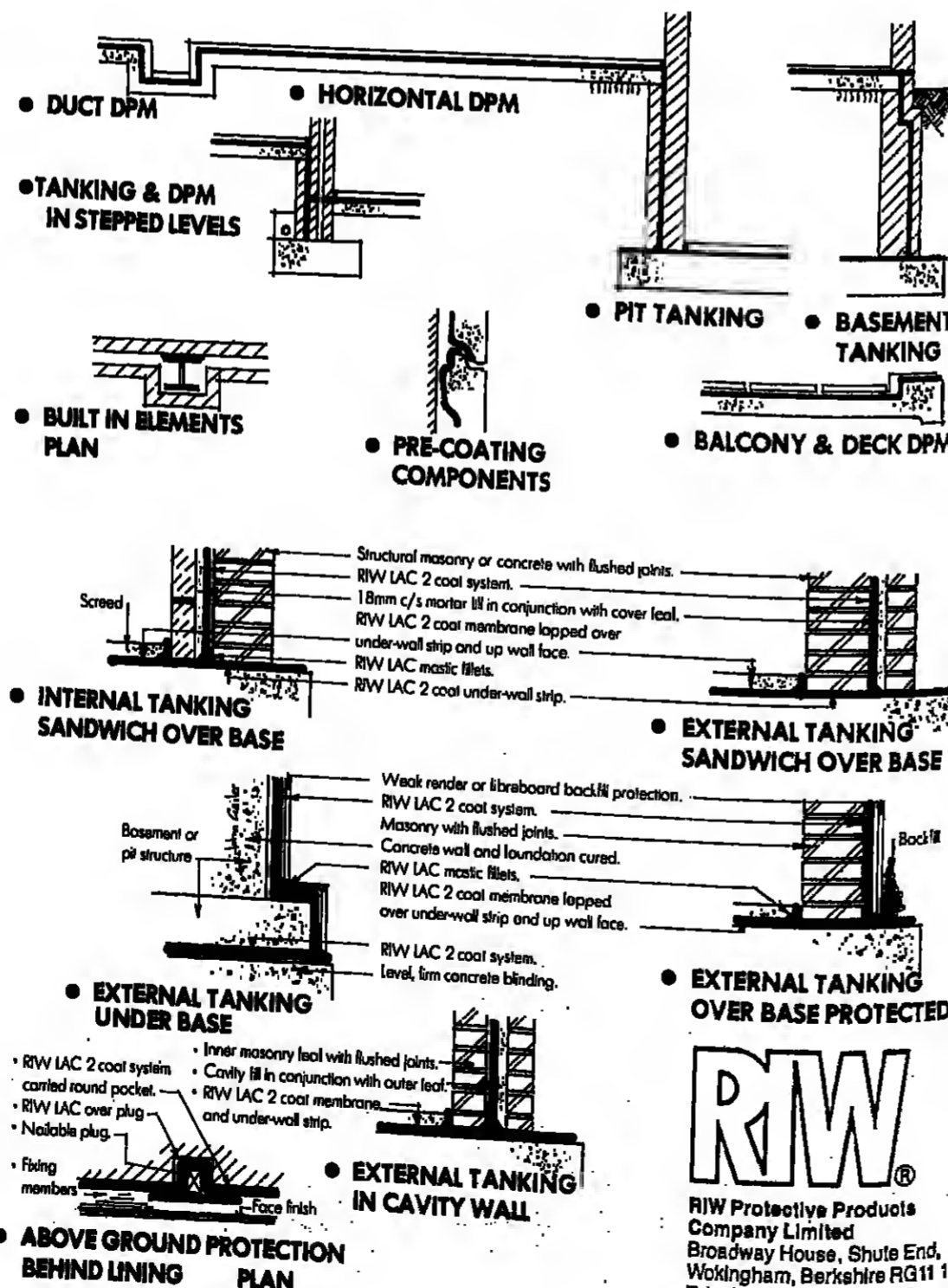
OLDHAM council has approved a £50 million town centre development designed by Bernard Engle & Partners.

It will have 27,000sq m of floorspace arranged over three glass covered sections. Work is scheduled to begin in 1988.



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# BUILDING DESIGN

No 812

The weekly newspaper for the design team

FRIDAY NOVEMBER 14 1986

## Gender record outrage

ARCUK registrar Kenneth Forster hit out at the activities of the RIBA women's group this week.

The group has been pressing for gender to be added to the Arcuk registration form because it wants to monitor the number of women entering the profession and the RIBA — but Arcuk has refused, saying it would imperil its exemption from the recent Data Protection Act.

At the RIBA Council meeting on Wednesday a motion proposed by Patricia Stewart called on RIBA representatives on Arcuk to seek this amendment to the form and its data bank.

Forster commented: "I'm amazed. Two years ago we had a box on the form for Mr. Mrs. Missor Ms."

"But the women's group wanted it removed because they said clients discriminated against them, and made it clear I would be very unpopular if it was not."

## Institute comes in for criticism

THE RIBA came under attack on two fronts at this week's council meeting — from students and salaried architects.

Jake Brown, council member and co-author of the new Salaried Architects Groups' report *The housing issue*, accused the RIBA of having "no recognition" of the housing problem and "statistical evasion".

According to Brown, the RIBA's reaction to the spending increases for housing, announced in the Chancellor's recent autumn statement, gave "no idea of how the figures were going to relate to the total problem".

He said the SAG report drew attention to this problem and emphasised the need for "real data".

If the public were to come to the RIBA headquarters, he said, they would find no recognition of the situation, even though they can read about the housing crisis in the papers.

On the student front, a survey of every architecture school in the UK revealed that the relationship between the RIBA and the schools was "at rock bottom", he claimed.

continued page 3

## Competition-winning Dane has had enough of French politics

# ARCHITECT QUILTS IN PARIS FIASCO

DANISH architect Otto von Spreckelsen this week abandoned work on the dramatic "Triumphal Arch of Mankind" in Paris, following conflicts with French politicians and designers.

Spreckelsen won the international competition for the project, which attracted almost 1,000 entries.

It was to comprise a new international communications centre plus accommodation for France's environment, planning and housing ministries.

After a jury including Richard Rogers had made recommendations, President François

By Paul Feldman

Mitterrand himself selected Spreckelsen's design — a cubic arch, 110m high, broad and long.

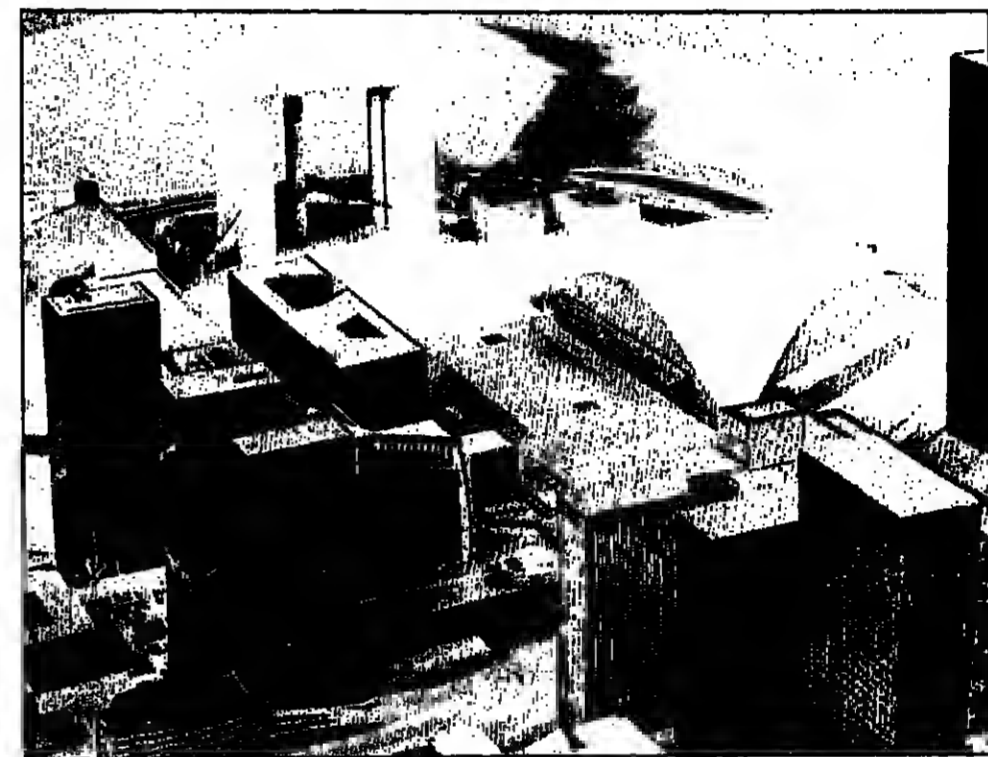
It is aligned with the historic Louvre axis, but shifted to acknowledge the Eiffel Tower.

Already the building is 20m off the ground, and building work is due to finish next year.

Mitterrand had weekly meetings with the architect, who is professor of architecture at the Royal Academy of Art in Copenhagen.

But the election of Conservative Jacques Chirac as prime minister resulted in a spending cutback on the project, and the idea of the communications centre was abandoned, despite Spreckelsen's protests.

Other disagreements emerged



as the chief French architect collaborating on the project, Jean-Marie Chevalier, tried to implement a 10 per cent cost-cutting exercise.

Mitterrand stepped in on Spreckelsen's side, telling French designers to respect the Dane's designs.

But further problems arose when the Danish engineer, Erik Reitzel, spoke out strongly against the way the piles were driven. His specifications were apparently ignored.

Spreckelsen has returned to Copenhagen following a minor operation in a French hospital,

and is making no comment. The French want him to return to the project, but this looks unlikely.

Spreckelsen's victory in the competition was a surprise, since he had only designed two churches in Denmark.

The cube at La Défense became his life's work, and he believes that a political decision has been taken to convert what was an exciting project into an ordinary government building.

Ironically, the brief and organisation of the competition were much praised, and described by Richard Rogers as outstanding.

A detailed consent was granted on the site in the 1970s when Wimpey and Trafalgar House were competing to develop it.

## Drawings favourite

FAVOURITE to be appointed as new curator for the RIBA Drawings Collection is Dr Thomas Cooke, an architectural historian specialising in churches. He works as an investigator for the Royal Commission on Historical Monuments and is an associate fellow of Pembroke College, Cambridge.

## Riverside design runs into City planning objections

WHINNEY Mackay-Lewis' design for a scheme to replace Vintry House on the north bank of the Thames next to Southwark Bridge (BD July 11) has been referred back to the officers by the City's planning committee.

Apparently the committee did not like the scheme overhanging the river.

Also the Port of London

Authority had objected to a building projecting into the river.

It refused to grant developer Wates City of London Properties a licence for the proposed projection.

The scheme incorporated features encouraged by the City — for example it improves sight lines to St Paul's.

## District nursing



pages 24-29

## Maintenance in need of shake-up

COUNCILS could save up to £700 million a year if they managed maintenance programmes of their 4.8 million homes better.

This is the conclusion of the Audit Commission, which monitors local authority spending and performance.

The commission, in a wide-ranging report, claims that:

● too much work is done on a jobbing basis, which costs up to 50 per cent more than the same work carried out as part of a

planned programme; ● emergency work accounts for up to 30 per cent of total maintenance expenditure in some areas, when it should at most amount to 5 per cent of all jobbing repairs;

● abortive calls on jobbing repairs can account for more than 20 per cent of all calls;

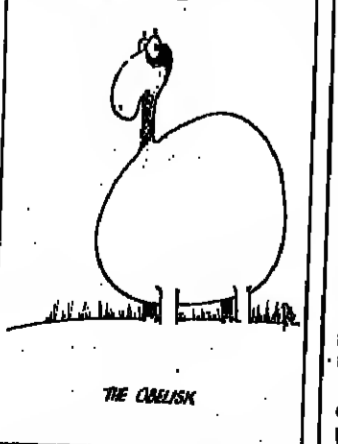
● many authorities do not secure effective competition for repair work, even though tender prices can be in the ratio of 2 to 1; ● redecoration and repair of homes left vacant can cost up to £1,000 per re-let — even though tenants are responsible for maintaining houses in good decorative order.

The commission proposes a three-stage plan to bring the maintenance problem, which could cost up to £20 billion to put right, under control.

First it wants a planned inspection of assessment of maintenance needs in all dwellings; secondly the start of managed maintenance on the basis of the existing best practices; and thirdly the seeking of new sources of finance to pay for the necessary work.

The report, *Managing the crisis in council housing*, is published by HMSO price £5.95.

## ...signing off...



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BY HENRY HAVERSTOCK

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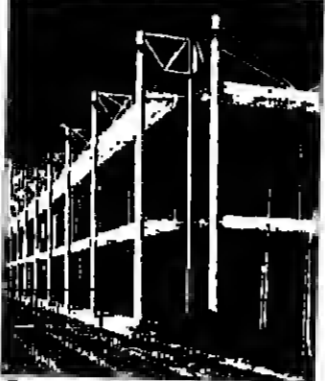
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## News



Award: Princes of Wales Conservatory, Kew. All steelwork design restrictions on its use were severe. There was to be no bracing, no lattice members, no trusses, standardised steel connections, and easy external access was a major maintenance.



Commendation: Computer Centre, Lennox Wood, for Sun Alliance. Architects Michael Auerkott Associates, structural engineers Anthony Hunt Associates.

### Prized steelwork

Four buildings have won the Steel Design Awards 1986. Hongkong & Shanghai's Foster Associates (prizes for Overseas Chinese Bank at Kowloon, the Prince of Wales Conservatory at Kew by the Prince of Wales Agency, special industrial unit by Milton Keynes Development Corporation, and Bristol's Great Western Railway Station by the Bristol City Council). The awards are sponsored by the British Steel Corporation and the British Construction Steel Association.

## 'We still want to move RIBA drawings' say the trustees

THE trustees of the RIBA Drawings Collection have reaffirmed their support for the "grand design" to move the collection back to Portland Place and the creation of a centre for architecture at RIBA headquarters.

An emergency meeting of the trustees was held last week in the wake of the row that has developed over moving the collection.

In a statement issued this week the trustees say they "will have the primary role to play in raising funds to pay for the move and to expand the library and its services. They realise this will be

readily and the Government would allow the collection to occupy "in lieu" of a plot.

Opposition to moving the collection from its present home in Portico Square comes from those who think the collection should be housed in a new building, the "grand design" principle, apart from the fact that the collection is generally supported.

The move is also opposed by some who think the collection should be moved to a new building, the "grand design" principle, apart from the fact that the collection is generally supported.

By Lee Mallett

a formidable challenge but they would not agree to the selling of drawings, or any other original materials to provide funds.

The so-called "grand design" envisages the British Architectural Library, which administers the collection, being a charter body independent of the RIBA (which would nominate say 40 per cent of its board members).

It would also have its own entrance at Portland Place, purpose-built gallery and other specialist facilities, closely linked to the extra facilities the RIBA has planned to promote wider use of the Portland Place headquarters, by both architects and the public.

Once the British Architectural Library, which includes the archival material, book collections, photograph collections, models paintings and sculptures, and the Drawings Collection are all located at Portland Place, then it would become a national subject museum.

This, it is argued, would enable funds to be raised more

### Jamaica assessor

JOHN Wells-Thorne, president of the Commonwealth Association of Architects, has been appointed assessor for the governor-general's award for architecture in Jamaica.

Awards will be made in five categories and a special prize for the Housing Trust Award will be given to the best low-cost housing project. This decision was particularly welcomed by Wells-Thorne, because the CAA is involved in the Jamaica Homeless 87.

## Benns launch appeal

TONY Benn MP and his wife Caroline are to launch an £85,000 appeal to save 37a Clerkenwell Green, London EC1 — an early 18th century listed building with political associations.

In 1892, for example, the Social Democratic Federation established the first Socialist Press there with the financial support of William Morris. In one of the rooms during 1902-3 Lenin edited the newspaper *Iskra* (The Spark) which was

distributed illegally in Tsarist Russia.

In 1933 the building was bought by the Labour Research Department and the Marx Memorial Library was housed there.

The appeal is being launched to raise cash for damp-proofing and other structural repairs and improvements. Contributions should be sent to The Treasurer, Marx Memorial Library, Free-post, 37a Clerkenwell Green, London EC1R 0DU.

## Birmingham takes steps for a smarter city

BIRMINGHAM City Council is to spend £2.5 million over three years from next spring to pedestrianise its main shopping thoroughfares, New Street and Corporation Street.

The programme will include a variety of enhancement schemes and tourism projects around the city centre. New arcades and colonnades will be built.

Work will also be carried out in John Bright Street, Hurst Street and the Jewellery Quarter. The Chinese quarter will be developed.

Labour councillor Fred

Chapman, chairman of the planning committee, said: "We have been talking for some years now about promoting ourselves as an international city. We have been talking about pedestrianising New Street and Corporation Street and that is now going to happen."

It will be another vital step in making Birmingham a truly international city.

Further improvements are planned for the Bull Ring and the Convention Centre area during 1987/88 using funds from the urban programme.

## BRE reports on fire

THE Building Research Establishment has published two new reports on fire legislation and a digest on gluing wood.

The Fire Research Station's documents are *British statutes relating to fire (1425-1963)*, which provides a background to present day statutory provisions relating to fire and *British fire legislation on means of escape 1174-1974*.

The latter looks at the development of technical guidance

prior to the publication of the British Standard Code of Practice CP3.

The reports cost £15 and £6 respectively and are available post free from Publications Sales, BRE, Garston, Watford.

The BRE digest on gluing wood costs £1 (minimum order £2) and gives advice on making effective glued joints and overcoming problems with wood species known to be difficult to glue.

## Opera plan gets warm reception

THE Royal Fine Art Commission is "full of admiration" for Jeremy Dixon's scheme for the Royal Opera House extension in Covent Garden, but wants to see improvements to the car park entrance and the design of the offices.

RFAC chairman, Norman St John-Stevens said, "the commission strongly supports the overall concept of the scheme and is confident that the architect will resolve the crucial and difficult problems relating to the design of the offices and the entrance to the car park."

The entrance to the 300-space underground car park is located in the Bow Street elevation of Dixon's scheme and because the provision of a car park is a planning requirement, Westminster has agreed to pay for it.

"It is unfortunate that the city council insists on a large car park," said Richard Coleman, RFAC deputy secretary.

Coleman said the RFAC intends to discuss the entrance and the design of the offices with Dixon, but would not elaborate on those aspects of the office design it would like to see adjusted.

Dixon too is unhappy about the car park: "The broader question is whether the car park should be included or not — I must stand neutral on this," he told *BD*.

The Covent Garden Communities Association argues that the car park will cause traffic congestion.



The water park will cover much of the site.

## Desert mall at Sandwell

Developer Color Properties has revealed the Percy Thomas Partnership's amazing designs for a £500 million shopping and leisure centre at Sandwell in the West Midlands (above and below).

Hungarian Igar Kolodotschko, the man behind Color Properties, has already won outline planning consent for the mega-scheme which will cover a 44ha site at the junction of the M5 and M6.

He is now travelling the City trying to find funding for the 495,000sq m development.

In a departure from the usual procedure, Sandwell granted Color outline planning consent without referring its decision to the environment secretary, even though the size of the scheme meant it was outside the borough's structure plan guidelines.

As no one objected to the outline consent, Color can now press on with its scheme. A detailed application could be submitted by next summer after extensive consultations with the council.

Roughly half the scheme will comprise a water park (shown here), and arena and fun fair, while the other half will be retailing including the "Wild West Desert Mall", complete with cacti.



Sandwell shopping mall.

## News

# BBC unveils plan for 'public debate' design awards

DETAILS of the new BBC design awards, aimed at involving the public in a debate about design, were announced this week by Alan Yentob, BBC's head of music and arts.

The awards have been divided into three categories — products, graphics, and environment.

The judges will be picked from professionals working in the fields of design, art and architecture.

Although the judges will have the final say, the public's nominations will be taken into account says the BBC. The public will be asked to select one from a choice of seven short-listed entries in each category through pages of the *Radio Times*, or by voting at one of the six provincial centres displaying the shortlist.

The Design Council, which is administering the awards, says that separate prizes could be given for the public's favourite and the judges' choice, as the two groups are likely to have widely differing opinions.

The entry receiving the greatest number of public votes will win the BBC Design Award, the principal prize.

Yentob emphasised that the prizes, which do not include prize money, will be awarded to the individual or design team

responsible, not the company. Although exact details of the rules are still hazy, the BBC is allowing vintage designs to be entered, providing that the designer, manufacturer, or client is still alive.

The Design Council believes that the awards could attract over 3,000 entries.

If the BBC decides to run the awards each year — which will depend on the ratings of three

competitors.

Final details of the competition and how to enter, will be announced on the first of the BBC's programmes on November 26.

The second programme next April will present the shortlist and the winners will be announced in the third programme in June.

Entrants for the environment category will be asked to submit four 35mm slides and a short description of the project.

As part of the awards, the BBC will also be showing six, 30 minute programmes on "design classics". The films will feature the Barcelona Chair, Levi's jeans, the VW Beetle, the Aga Cooker, the Coca-Cola bottle and the London Transport Underground map.

The BBC's choice of products

has already been criticised as being "too predictable" with only one of the six classics — the Underground map — being by a British designer.

She said that shopping centres, theme parks, station forecourts, marinas, and landscaping schemes would all be eligible for entry, but suggested that

the category be sub-divided to make it less confusing for competitors.

Designers, Jane Priestman, so far the only known judge for the environment category, said that environment was a difficult area to define.

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## Use class changes welcomed

AFTER detailed consultation with the Government the Royal Town Planning Institute has welcomed most of the proposed changes to the Use Classes Order.

But it is not in favour of plans to combine offices and light industry in the same class.

It agrees that many modern offices may be suitable for both uses and that hi-tech businesses may need to switch between the two, but suggests that in such cases permission should be granted for both uses in the same building.

Drawing up the new legislation has taken much longer than expected as definitions of the new classes have proved difficult.

It is now expected that the new order will come into use in early 1987.

## Research awards

APPLICATIONS are being invited for the RIBA's 1987 research awards for individuals or groups involved in postgraduate research on contemporary or historical architecture, building or planning.

The awards are usually between £500 and £5,000 and have been the stimulus for larger grants from other funding bodies.

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## Chapman Taylor for Bromley facelift

BROMLEY council has confirmed that Chapman Taylor & Partners will be carrying out the £50 million redevelopment of Bromley town centre.

The policy and resources committee said that the scheme, backed by developer Capital & Counties, would "rank among the best of its type in the country and provide a successful and much-needed addition to the prime shopping area and leisure facilities of Bromley".

Chapman Taylor has three other schemes by Leslie Jones, T P Bennett and Building Design Partnership with a 35,000sq m retail and offices development.

The 3.6ha development site lies in the heart of Bromley's main shopping area and immediately to the east of the High Street.

Much of the site is already owned by the council.

Chapman Taylor's scheme includes two department stores, totalling 11,000sq m, 70 retail units, a 5,000sq m extension to Marks & Spencer's and a leisure centre.

Queens Garden is to be extended and enlarged to form an integral part of the new shopping centre.

The scheme will also provide 1,450 car parking spaces.

The scheme also envisages the relocation of the Methodist Church and United Reformed Church as well as providing 20 housing units.

## Leading building firm to float on exchange

ONE of Britain's largest building components suppliers, the Yorkshire-based Ward Group, is to obtain a full Stock Exchange listing on November 19. Ward is probably the market leader in the manufacture of steel roof purlins, having an estimated 30 per cent of the market — together with 20 per cent of the cladding (as opposed to curtain walling) market. It has subsidiary operations in France and Germany, and a venture with Schuco, the

German curtain wall firm. Twenty five per cent of the company is to be sold through a private placing of shares in order to raise around £2 million. The 70-year-old Ward brothers, Frank and Will, who founded the company in Sherburn, North Yorkshire in 1949, will be selling 3.5 million shares while 2 million new shares will be issued. This will leave 10 per cent with employees and a further 65 per cent with the family.

## Share issue

REGALIAN Properties, the tower block refurbishment specialist is hoping to raise £35 million with its second share issue in 12 months.

The rights issue will help finance the company's increased level of activity.

## Show is off

THE exhibition of competing designs for schemes to house the Thyssen Collection in Lugano — won by James Stirling, Michael Wilford and Associates has been postponed.

## Conference tickets going

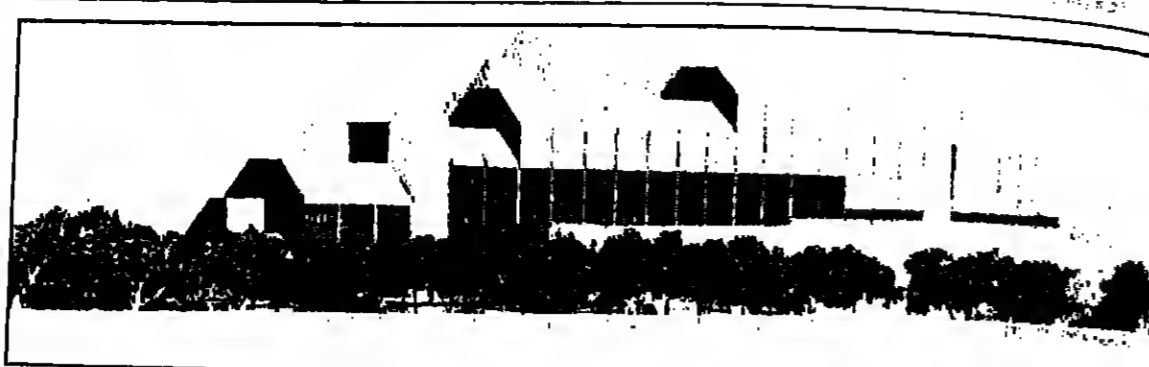
THERE are a limited number of sponsored tickets still available for the community architecture-based "Building Communities" conference on November 27 and 28.

The normal price for the two-day event which will be addressed by the Prince of Wales, Lord Scarman, Michael Heseltine, and Rod Hackney, is £90 but a special concession is available to students, voluntary organisations and others who cannot afford a full ticket. Further information on sponsored tickets is available from Jane Ahern, 15 Bindon Close, Lulworth, Wareham Dorset BH20 5PX.

Work has started on the Daily Mail's new printing works in Surrey Docks, south of the Thames in London's Docklands following the granting of full planning consent for Watkins Gray's design.

The architects have already completed two buildings for the Daily Telegraph in Manchester and the Isle of Dogs, and estimate that this latest plant, totalling 24,500sq m and costing £25 million, will be ready for press installation in 16 months, with completion due 8 months later.

The Daily Mail, The Mail on Sunday and the London Standard will be printed at the plant in late 1988.



## Diorama tenants bid for lease and arts conversion

TENANTS are launching an appeal to buy the lease on the 1823 Diorama building in Regent's Park — and convert it into a community-based arts and entertainment centre.

Negotiations opened this week between landlords for the site, the Crown Commissioners and the board of trustees for the tenant group, Diorama Arts,

schemes from Diorama Arts and the Crown Commissioners after the Government approved both schemes for the site earlier this year.

The council came down firmly in favour of Diorama Arts and architect Alan Phillips' scheme to upgrade the building for use as an arts and entertainment facility.

The Crown Commissioners face a long and probably expensive appeal against Camden's decision and sale of the lease could be an easy way out.

The Alan Phillips scheme, which could cost up to £2.5 million, would ensure the Diorama's existence for future public use, add to the surrounding buildings and retain all the elements of historic interest within the building.

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## Fire costs rocket

THE cost of fire insurance was not estimated in the 1985 survey, but in 1986, a 38 per cent increase in the same quarter in the same quarter in 1985.

The total for the 16 months of 1986 was £16 million, compared with £12 million in the same period in 1985.

## Workload forecast

CIVIL engineering workload is steady but the outlook is gloomy, according to the latest survey from the Federation of Civil Engineering Contractors.

Although there are indications of marginal improvements compared with 12 months ago, the position is not so good compared with six months ago.

The proportion of firms without any civil engineering work on their books stands at nine per cent.

## Cool reception for Kent new town

YET another proposal for a 170th new town on green belt land in Kent has been unveiled — by Trafalgar House's housebuilding subsidiary, Ideal Developments.

Ideal's proposals come in the wake of Prince Charles' recent disapproval of developers' penchant for greenfield sites over those in the inner city.

Its scheme also received a frosty reception from the local planning authority, Tonbridge and Malling district council.

Ideal wants to develop a £150 million scheme at Leybourne Park, on a site adjacent to junction four of the M20, three miles from Maidstone, bounded by the A228 and A20.

The site includes the Leybourne Grange Hospital controlled by the South-East Thames Regional Health Authority.

The scheme provides a massive 74,322sq m shopping park, tennis centre, gymnasium and fitness centre, discotheque, swimming pool, bowling rink, 200-bed hotel complex and conference centre and a 9,290sq m business park.

The shopping park would include parking for 5,000 cars, a 13,500sq m department store, a 5,400sq m superstore, a similar

amount of specialty shopping with a "climate-controlled" mall, and a market hall.

The residential content of the scheme would cover 39th and include around 1,750 homes.

Ideal claims that 2,500 jobs would be created during its construction and 2,000 more permanent jobs would result from

the development. A spokesman for Ideal admitted that the scheme was outside Kent's structure plan which is currently under review.

He also said that Ideal had identified demand for both the housing and commercial elements of the scheme, and considered that current Kent planning

police did not enter for that demand.

Planning permission has been granted for another new town just north of Bristol at the interchange of the M4 and M5 motorways.

Ideal Hames, CH Beazer, Tarmac, Westbury Homes and a host of other housebuilders are to build 8,500 homes for 25,000 people.

Northavon district council and Avon county council are also involved in the scheme.

## Schreiber house fight runs on

THE future of James Gowan's much praised, and criticised, Schreiber house was still uncertain this week, with architects Paskin Associates preparing to appeal against Camden council's refusal of demolition consent.

The council is trying to thwart plans by Gable House Properties to demolish the 1964 dwelling and build three blocks of 24 flats on the site.

No one has come forward to buy the £1.8 million stylised and personified four-storey house following the death of furniture magnate Chaim Schreiber. Surviving family members see the demolition and rebuilding plan as the only way forward.

The building is in the Red-dington/Frogna conservation area, which was designated in 1985, and needs council permission for demolition.

But Camden has stated its opposition to the loss of such an important architectural feature.

Paskin Associates will be asking environment secretary Nicholas Ridley to decide the matter. They say they are confident of a favourable decision because the building is not listed — but Camden is asking for listing to take place.

By Alan Thompson

Project architect Charles Sands told BD the normal procedure to protect the building at this stage, would be to apply to get the house officially listed by the DoE.

But at only 22 years old, the Schreiber house would not normally qualify.

So far there has only been one post-1939 building listed — the Brynmawr rubber factory in South Wales. Cadw, the Welsh architectural watchdog group, campaigned successfully to get the factory listed seven months ago.

Camden council is hoping that Ridley will allow a similar listing in the case of the Schreiber house.

Gowan's brick and glass house, his first project after the dissolution of his partnership with James Stirling, has been described as more suitable for local housing than a residence for a successful furniture manufacturer.

And some critics say that the brutalist design does not fit in with the Victorian dwellings beside it on the edge of Hampstead Heath.

But the house has also been praised for these elements, particularly its lack of compromise in design, its situation, layout and high quality detailing.



Pending off demolition — James Gowan's Schreiber house.

## Stone specification goes down the pan

AN administrative blunder by a county officer has led to toilets at the Church of England school in Ducklington, Oxon, being built in the wrong kind of stone. And as a result of parish council

protests the partly-completed toilets will have to be demolished and built again.

At an urgent meeting last week three county council officers argued that the work should be continued. But West Oxfordshire district council supported Ducklington parish council in insisting that the correct stone should be used.

THE closing date for the 1987 International Interior Design Award submissions has been extended to January 9, 1987 to allow schemes completed by the end of 1986 to be included.

The first stage of judging will take place in February 1987 and will be carried out by international jury of Ettore Sottsass, Antti Nurmesniemi, James Wines, and architects Dennis Sharp and Eva Jiriena.

The meeting heard that planning permission for the toilets had been given by the district council on condition they were made of natural stone.

The mistake was spotted by Ducklington parish council when the walls were 1m high.

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Two Danish developers, the Ibsen Group and Christiant & Nielsen are planning this £25 million housing scheme at Greenland Dock in the Surrey Docks south of the Thames in Docklands.

Designed by Danish architects, Kjaer & Wichter, the scheme covers a 1.3ha site on either side of the entrance to Greenland Dock.

Flats, maisonettes and family homes are planned to echo the classical architecture of 19th century London row houses, squares, circles and terraces are included in the design.

Called Greenland Passage, the development will consist of three- to five-storey buildings around a central courtyard on each side of the dock entrance. At the northern side of the development a small street is formed by a row of four-storey houses and flats, culminating in a small tower overlooking the river.

The river serves as the focal point for the scheme and the frontage becomes an extensive landscaped public plaza overlooked by the two curved terraces, one convex the other concave, of the central buildings.

## Surrey plan published

DETAILS of the public examination of Surrey County Council's alterations to the Surrey structure plan have been published by the council.

Interested parties have until December 2 to object to the issues or participants selected. Issues to be discussed include the future of the green belt and the countryside and future provision for housing.

The examination opens at the Mortlake Hill, Dorking Halls, Reigate Road, Dorking on February 3, 1989.

# Suspended architects vie for Lambeth directorship

LAMBETH council's two most senior architects — both suspended on full pay by the local authority — have applied for its vacant director of architecture post.

Herb Meyer, a practice manager, was suspended on July

17, 1985 and is still willing to be informed of the charges against him. Mark Drummond, a principal architect, was suspended earlier this year.

An internal inquiry into Drummond's case at the beginning of October dismissed seven charges against him, but recom-

mended he should be sacked for talking to the press. He has not been formally notified of the decision.

He was surprised to learn that Drummond had sent a copy of his application but he said it was serious and he expected to be called for an interview.

Since the departure of a large number of architects from the council he is the second most senior, has worked for it for 11 years, and lost year handled a third of its completed projects.

He named John George, the chief executive of the council as one of his referees. Normally, he said, he would have named Meyer because he was his immediate boss, but as he had been suspended and his boss James Campbell had left the council, George was the logical choice.

Friction between Drummond and some members of the council developed after Meyer

By John Wood

was suspended for alleged mismanagement. Drummond was suspended after he spoke in national papers about the case and criticised the council.

In June another member of the architects' department, Nigel Conner (31), was bound over for £500 for threatening Drummond and had a subsequent appeal rejected.

Meyer refused to comment on his job application except to say it was serious.

He has now been waiting almost 16 months to hear what the disciplinary charges against him are.

## Local sports guidance

THE Sports Council has published two design guides for local sports centres.

They appear under the Sports Council's "Standardisation approach to sports halls" (SASH) initiative.

Indoor dry sports building and swimming pool option are available from the Sports Council Publications Unit, 16 Woburn Place, London WC1 at £20.

## Building Regs seminar

A SEMINAR on Building Regulations organised by the British Institute of Architectural Technicians will be held at the Clifton Hotel, Luton on November 26 at 7.30pm.

The speaker is Douglas Harrison, of the Institute of Building Control Officers.

ISLINGTON council's architectural department is to hire 10 professionals in the 70 posts agreed earlier this year.

Councillors in the Labour-controlled borough have agreed to hire them in the capital building programme following a Labour victory in the next general election.

Islington's architectural department incorporates all the professional and proposed increase would make it one of the largest architectural offices in the country. It has doubled in size in the last 30 years with a 30 per cent increase in the last seven months.

## Religious conversion for the retired

A £1 MILLION conversion of a Bristol church by Design Build will provide retirement homes for the elderly.

The company is taking a £604sq m four-storey black on an adjacent Clifton Down, late church by an architect.

The former St. John's Church has been empty time and was falling in pairs. The conversion retains three of the original facades, with a new structure behind to accommodate the flats. The new building is in its original existing state.

Managing director of Mike Duckering said he wanted to save the fabric of the church, an important landmark in the area, while bringing the building into use.

## Sussex winners announce

THE winners of a conservation award for a house in Sussex were announced by Sussex County Council.

Five awards were made. The award for a house in Sussex was made to David Russell (3) of St. Edmund's School, designed by him in 1875.

Architects Richard P. and Walter G. owned for the conversion of a Victorian water-carrying house at Biggles.

Awards were also given to Nicholas Rowe Associates for a 19th-century timber-framed building at the D. Edward King House and Neil Holland for a building in a historic area.

The judges said they were impressed with the quality of the owners, designers and builders involved.

## Errata

● The scheme illustration on page 11 of our brick supplement was done by David Cress and Peter York for York Housing Association, and not as stated.

● In the same supplement two pictures at the foot of page 19 were transposed. Our apologies for any embarrassment caused.

● Architects for Michael's offices, including the lighters (BD), October 1988, Troughton McAlister.

## Islington hires more

ISLINGTON council's architectural department is to hire 10 professionals in the 70 posts agreed earlier this year.

Councillors in the Labour-controlled borough have agreed to hire them in the capital building programme following a Labour victory in the next general election.

Islington's architectural department incorporates all the professional and proposed increase would make it one of the largest architectural offices in the country. It has doubled in size in the last 30 years with a 30 per cent increase in the last seven months.

## Infill



## Atwell at large

## Prince's shot off target

WITH exquisite timing the Prince of Wales has intervened again in the greater inner city debate at a convenient moment in advance of his keynote speech at the Building Communities Conference later this month.

Whether the venue of an NHBC conference was appropriate, or whether he chose the right target in lambasting the volume housebuilders is more debatable. Or perhaps it was a coded message to government?

In condemning housebuilders for wantonly using up scarce greenfield sites he strikes populist chords that few would wish to argue with, but his corollary, to quote his NHBC address, is that "greenfield sites, from an overall national economic point of view, are far more costly to develop than derelict sites, although on the face of things they may appear to be cheaper".

The origins of the downward spiral of decay in several of our major inner cities goes back to the aftermath of bombing in the last war. In most of them it was the actions of successive governments in the 1950s and 60s in promoting the new and expanded towns policies that denuded our inner cities of population and commerce. If people and industry are to be encouraged back it can only be by means of special fiscal incentives.

Before blaming the housebuilders for anything, we must acknowledge that they are responding to market forces in wanting to build in the countryside. One should look to government for an absolutely firm line in holding to the green belt and resisting any incursions, whether for residential or industrial purposes, and to treat increases in leisure provision with extreme caution.

At the same time people have a right to live in the country if they choose. There are plenty of greenfield sites, accessible to our cities and away from top grade agricultural land, that could take housing, as well as limited expansion to satellite or dormitory towns. Families with children and cars want to live in the country. No government's policies should force them into the inner city through shortage of housing on greenfield sites.

Young and old people often favour the inner city for its communications and access to social life; families too, especially first-time buyers before they exceed the upwardly mobile ladder of buying and selling property that slowly but surely leads them outwards into the commuter belt. But it must always be remembered, even by the Prince of Wales, that it will inevitably be more expensive to build in the inner city.

Floodation problems, and services and access arrangements, frequently push costs up to a level where such development is a severe disincentive to any housebuilder. The only way to encourage them is for government to offer the financial advantage.

There is a great deal of nonsense talked nowadays about the need to refurbish old industrial buildings and warehouses in inner city areas for housing. It can be demonstrated in many cases that it would be cheaper to pull them down and rebuild with new homes. Regrettably, as many developers and local authorities have discovered, that would remove the possibility of government grants. The result is that a variety of intrinsically ugly and unsuitable buildings are being expensively converted into the sort of units that only the wealthiest can afford.

What worries me most about current trends in our cities both from government, and to some extent echoed by the Prince of Wales in applauding private self-help enterprise, is the obsession with privatisation. London Docklands is a splendid example of how an urban development corporation can work, but its geographic situation offer unique advantages. Merseyside is less successful for obvious reasons; would entrepreneurs invest in Hull if one was set up there?

More UDCs could and should be created, provided they are given greater powers of implementation, and are not simply imposed as another layer of bureaucracy on top of what the Government see as recalcitrant local authorities. What on earth is the point in Nicholas Ridley announcing four new UDCs in rote-capped areas where the effect is to take the money away from the local authorities with one hand and give it back with the other to a new quango? Can anything other than hostility and prevarication result?

Unlike many involved with the construction industry, I believe implicitly in the ability of local authorities to get on with the job of rejuvenating our inner cities provided they are given a clear brief by government and the resources to carry out the task. They would recruit the necessary expertise. While far greater partnership between local authorities and the private sector is still desirable, and could be insisted upon by government as a condition of funding, I believe local authorities should be the prime movers.

The Government has signalled some relaxation in spending on construction next year. This is good news but another £1/2 billion will not keep pace with the accelerating rate of decay to our housing stock, nor will it have any effect on the need to build new council housing for rent to replace some of the stock sold off under "Right to Buy" legislation. I am persuaded by the continuing references to changes in mortgage tax relief that something needs to be done on this front, but what government would be brave enough?

I believe a constructive move in the right direction would be, in essence, to accept a compromise that first-time buyers and the less well-off will always need help. Mortgage tax-relief should only be paid at the basic rate of income tax and the limit reduced from £30,000 to £20,000. It has been calculated that would save £1 billion on this year's estimated Treasury subsidy of £4.75 billion. If government agreed that sort of sum being transferred annually into alleviating some of the inner city decline then real progress could be made towards the Prince of Wales' wholly justifiable goals.

## Tactical missiles

THERE are many RIBA members who dislike having the fag of electing a president rather than letting one emerge via the council. Others enjoy the opportunity for debate and discussion — and seven thousand have so far cast their vote for either Raymond Andrews or Rod Hackney. Whatever your view, there is one astonishing aspect to the current election campaign which is certainly new to the Institute, although commonplace in political life generally. This is the personal smear. And I find it surprising that Raymond Andrews, with backing from the RIBA president, should be resorting to this sort of tactic. In the last fortnight Andrews has accused Hackney of being like a "used-car salesman", "out of balance" (I wonder what that is supposed to imply?), like Derek Hatton and/or Arthur Scargill, the "subversive".

Meanwhile the president repeats his criticisms of the election tactics of

Hackney in relation to the UTA — for a full account of what is going on see *Scorpio* — and calls for an end to the unpleasantness. So far Hackney has not responded in kind and I hope he doesn't. It is good copy for journalists if election candidates descend to personal abuse, but does nothing for the reputation of the profession. The president, conscious of this, recently said the construction industry looked forward to a comic spectacle every two years. However, this election is quite unlike the last three, in that the primary issue is over a fundamental policy — whether the Institute becomes more involved and committed (ideas related to community architecture, though of course there are the usual claims and counter-claims about the importance of other areas. There seems to me to be a fairly clear-cut choice — a good conventional candidate or an outstanding unconventional one.

## The Editor's Comment



Readers will have the chance to hear more of the arguments of the candidates when we report next week on their first of their public encounters. Obviously other issues include the future of the library, education, the UTA presidency and so on. These are all serious matters and subjects which can be discussed rationally. Ray Andrews is commodore of the RIBA Soling Club — but naval language is unlikely to win votes and influence people. As for the president, he should not become personally involved in the election. When he himself was a candidate, would he have expected the then president, Michael Manser, to intervene publicly on behalf of his rival?

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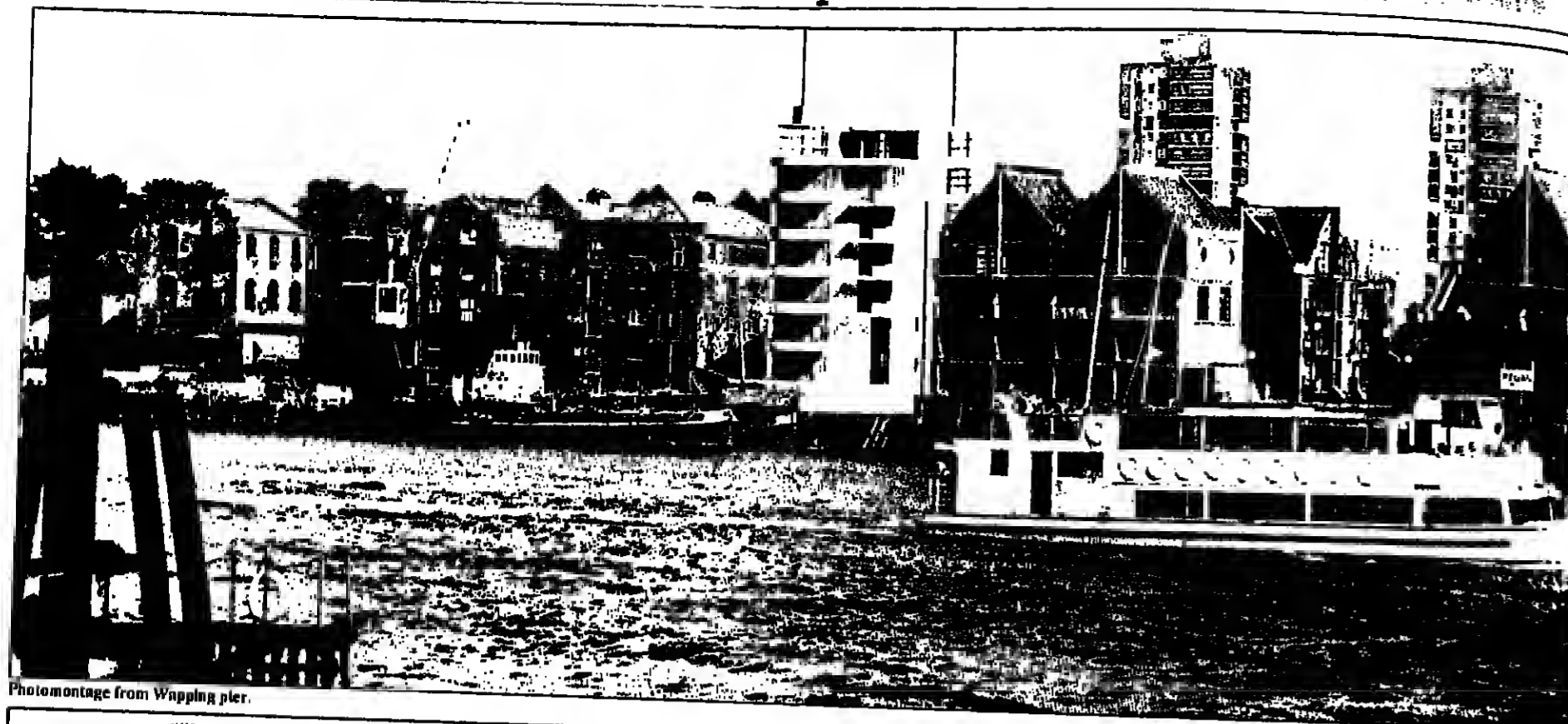
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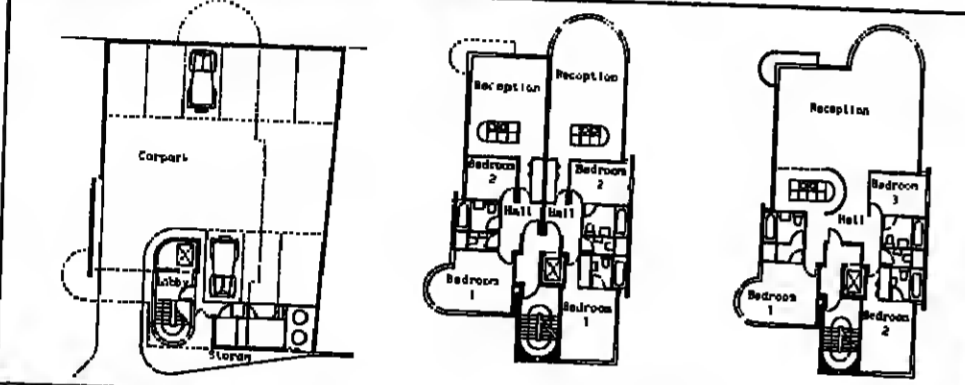
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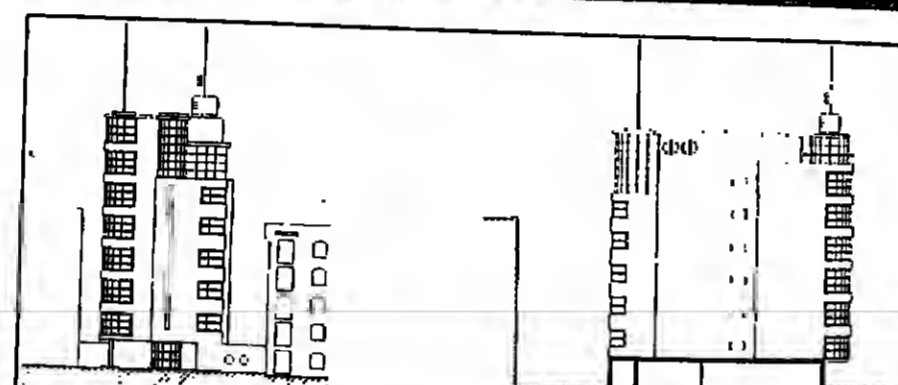
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Photomontage from Wapping pier.



Above left: plan of the ground floor, centre, the first floor (two apartments) and right a typical upper floor (one apartment).



Elevations.

## When Modernism means historicism

IF London's Docklands don't generate the most pleasant environment in which future generations can live, work and play, they will certainly provide the architectural historian with plentiful, if somewhat confusing and contradictory, material with which to piece together the story of our confusing and contradictory times.

Nowhere will this be more apparent than at Elephant Lane where, amid a number of retained 19th century warehouses, a competition-winning housing scheme has recently been built (by Corrigan, Soundy & Kilnidi) and permission has just been granted for a "Modernist" apartment block to the designs of Troughton McAslan.

And while Elephant Lane represents a contemporary reinterpretation of Thameside vernacular in brick, tiles and

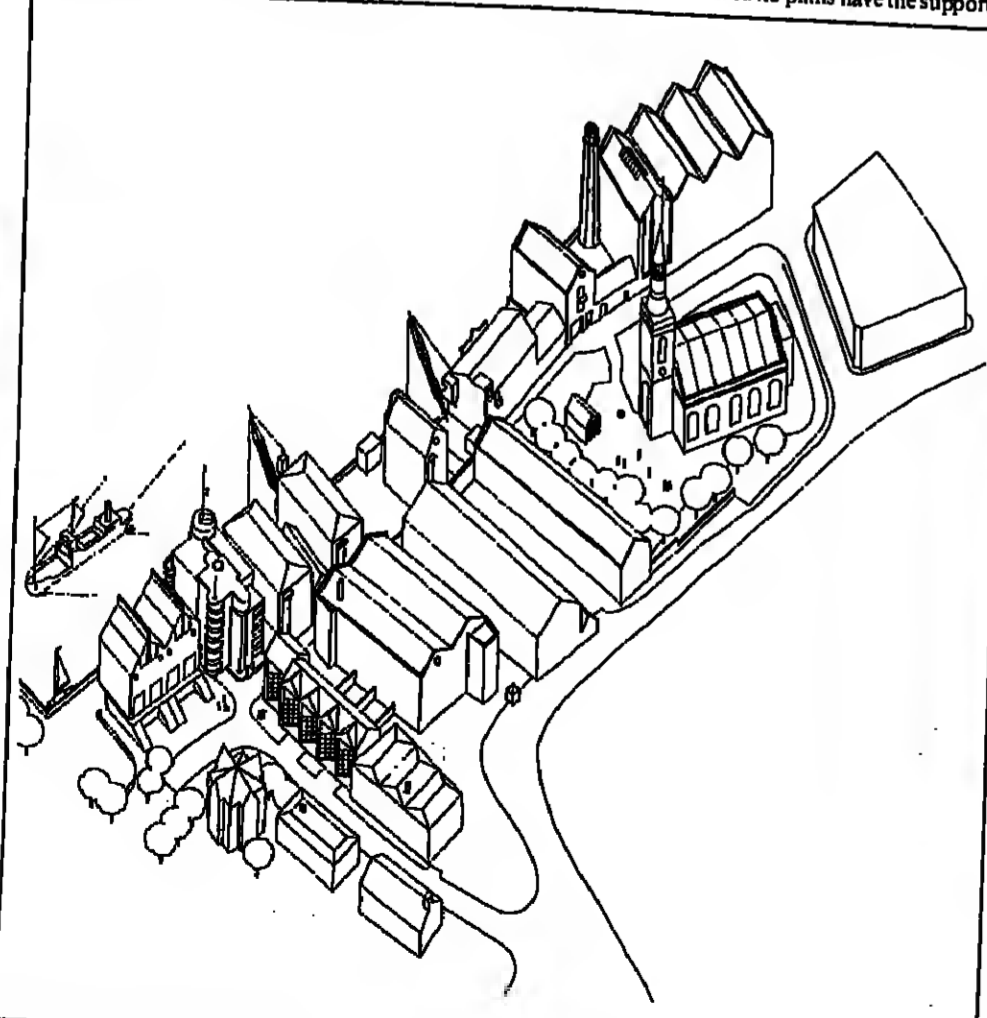
concrete, the adjacent scheme will recall (according to the designers) the work of modernist pioneers like Mendelsohn, Connell, Ward & Lucas and Frank Lloyd Wright, with its ribbon windows, curved bays and balconies and nautical references.

The apartment block is set in the Rotherhithe conservation area and its plans have the support of both Save and the Royal Fine Art

Commission, who are both presumably happy to encourage development of a rich and varied urban environment along the particular stretch of the river.

Troughton McAslan's comments accompanying the scheme-giving a "clear reference to the (Modernist) past", paying "homage to the mutual tradition and to buildings like Millwall Flats, Millwall Rotherhithe Church", while "staying clear of the worst aspects of the building, and as such the proposal can be seen as a historicist in approach, perhaps more overtly so than Elephant Lane itself."

The scheme will start on site next spring and completion expected by spring 1988.



Aerial view of the conservation area.



View from the river.

## Scorpio



### Strange case of the headed notepaper...

LARRY Rolland is infuriated by a letter written by Rod Hackney, on RIBA-headed notepaper no less, to the presidents of all the UIA affiliated institutions. It promotes Hackney's candidacy for the presidency of the UIA — against the institute's official candidate, Owen Luder.

But was Hackney wrong to do so? The answer lies in the minutes of a meeting on June 19 of the institute's UIA sub-committee — attended, amongst others, by Mike Austin-Smith, Geoffrey Darke, John Fidler, Philip Hodgkinson, Gersint John, Philip Jordan and Bill Reed.

These show that not only did the committee unanimously reaffirm its decision in favour of Hackney being the institute's nominee for the UIA presidency, but that this should be made clear to the national sections within the union. What is more, so alarmed was the sub-committee by the way in which its own recommendations were blocked by policy committee and the president, that it considered measures including resignation en bloc and asking Luder to stand down from the election.

The sub-committee expressed its dismay "over the lack of formal consultation on these matters and the lack of production of any evidence to support decisions taken by the RIBA president and policy committee."

And finally the committee decided that "it was its duty to inform the UIA general secretary and the national sections of the views expressed."

Strangely enough, I do not recall these matters being aired at the council meeting when Luder was adopted as candidate, but there is obviously a simple explanation I have overlooked.

● Memo to mole-hunters: this information did not come from Hackney.

### Suitable for broadcasting

CONFUSION over the role of buildings in the new BBC design awards was neatly illustrated by the following conversation at the BBC's press conference, held at the media's favourite cattery, L'Escargot.

Asked by Scorpio if the new Lloyd's building would be eligible for entry produced a varied and conflicting response. The BBC producer who is responsible for the three design award programmes, convinced me that buildings of Lloyd's calibre were crucial to the award's success, while Jane Priestman, one of the judges, went weak at the knees when Lloyd's was mentioned — implying that exciting new buildings will stand little chance against freshly mown village green and all those carefully engineered motorway interchanges.

The final, probably correct answer must lie with Paul Ambridge, the Design Council's awards manager, who has the inevitable task of devising the rules.

Lloyd's can have two cracks

at the whip. It can be entered once as "a working interior" explained Ambridge "and secondly as an exterior that impinges on the public's environment". There is no category for unrealised BBC headquarters designs.

### Minaret madness

LEON Krier's classical time-war may not be the only unusual addition to the Spitalfields skyline.

On the border of the development area is the Brick Lane Mosque whose proprietors have produced near-apoplexy in some conservationists with their desire to add minarets to the 1743 building.

I hear English Heritage, sore about internal work performed with ecclesiastical exemption, are advising Tower Hamlets council to refuse planning permission for the "clamping on" of minarets to the building.

But recognising the need for a mosque to express itself as a mosque they would be more favourably disposed to the erection of a separate structure on the restricted plot of land behind the building. Just like putting a church spire in the graveyard.

### Ageist policies

I THOUGHT "semi-mature" was a foodie word applicable to cheeses. In the Midlands, it turns out "semi-mature" describes people between the ages of 30 and 60.

Part of Walsall's housing policy is to cater for this previously unidentified sector of society by converting "multi-storey" blocks into "semi-mature" homes. Maturity means they fall down.

WHO worked on what department: browsing through old issues I notice that Quinlan Terry was an assistant to Stirling on the Leicester engineering building. Information on similar unlikely connections gratefully received.

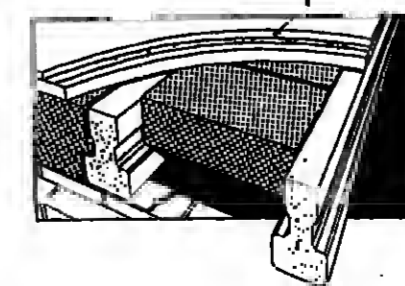
### 10 years ago

THE environment secretary has turned down plans by the Architects Benevolent Society for a retirement home on a site in Wallingford, Oxfordshire. The original competition-winning architect had been sacked from the project and new plans prepared. But the site was said to be too important archaeologically to be developed. Compensation was refused.

Building Design, November 12, 1976.



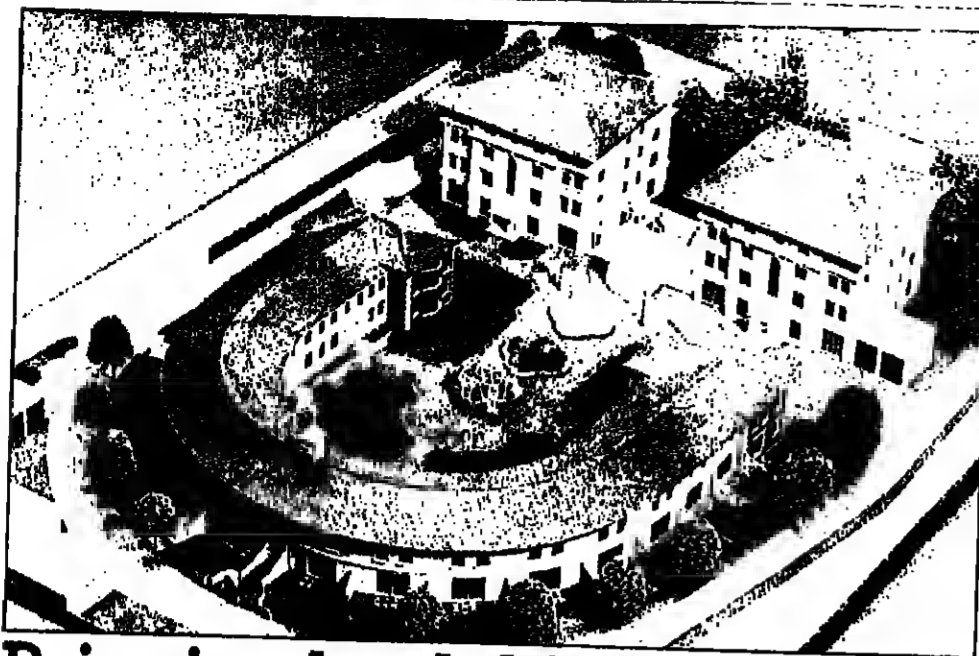
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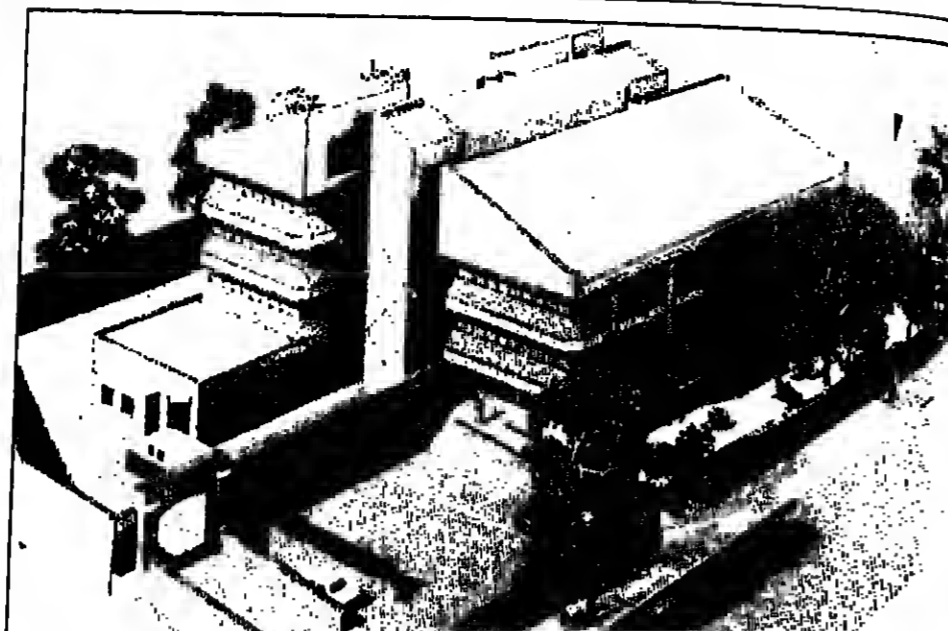




## Bringing back history

Pegasus Court Retirement Homes in Cheltenham gave architects the Falconer Partnership the opportunity to design the first horseshoe crescent there for 150 years. The show-houses reflect the traditional style and planning of the development which features a Victorian

timber conservatory with tile pattern flooring. It links the two Regency-style apartment blocks which front the development. The crescent comprises mews cottages and apartments enclosing a formal garden with ornamental pond and rose arbour.



## Law recruit

The construction of a new divisional police station is underway at South Norwood, near Croydon. Raymond Smith & Associates liaised with the Metropolitan Police director of property services to design the £3.8m building, which has a reinforced concrete frame and basement with brick cladding. Completion is expected in December 1988.



## City offices

Right: This development at 9-13 Carthusian Street, London EC1, was designed by Ronald Ward & Partners for developers Highbury House. Work on it has now begun.

The £4.7m contract comprises 2230sq m of office accommodation with two ground-floor shop units and 10 luxury apartments. The building will be clad with reinforced concrete and quality facing brick, tile and Portland stone. The lead-faced mansard roof is to have dormer windows.



## New swallow

Deney & Bryan are architects for Swallow Hotels' new four-star hotel in Waltham Abbey, Essex. The 163-bed complex will cost £25 million to build and is due for completion in early 1988. Facilities will include a large swimming pool, restaurant, coffee shop, conference and function rooms.



## Triple echo

Work has just started on this £40 million hi-tech, hotel and leisure scheme on three separate sites in Reading, designed by Scott Brownrigg & Turner for developer Becontree Estates. Shown here is the hotel to be run by the Norfolk Capital Group while some 19,000sq m of hi-tech industrial space will be built in two other sites. Quantity surveyors are Burke-Collis & Partners, engineers Bunyan Meyer & Partners.

## Profile

# Design high-flier still on the right tracks

Jane Priestman is the new design supremo at British Rail. She talks to Tony Aldous.

JANE Priestman, who on November 10 took up the new position of director of architecture, environment and industrial design at British Rail, is not an architect. She continually regrets that fact, she says, but adds that she has worked closely and productively with architects during more than 30 years as a designer.

Priestman's new role is a challenging one — to reconcile BR's corporate identity with a separate identity for each of its constituent and increasingly autonomous businesses. "The identity for each 'profit centre' needs to be consistent with the central identity," she says. For instance, Network South-East's logo and colour scheme have to be distinctive but also fit in with overall BR house style.

She comes to BR from the British Airports Authority, where three years as design consultant have been followed by eight more as design manager — something BAA did not have before it appointed her. The need was in many ways similar to BR's present need — to ensure design consistency, but to reconcile that with the creation of an individual identity for each airport.

The public, she says, did not want "anywhere airports". So "each airport became a different place, yet with the same black-and-yellow signing". Gatwick, with its own warm, reassuring, cohesive personality, is probably the best example of that policy.

She has a broader range of responsibility than had, say, Bernard Kaikus as director of environment, and agrees that in the past BR may have suffered from different people and different advisory panels dealing with industrial design, environmental design or architecture. She covers all three. "The brief is wide open and very exciting".

At the heart of her job, however, is design consistency; and that, she argues, has as much to do with educating staff as with maintaining standards. Nor is it concerned exclusively — or perhaps even mainly — with new build. At BAA it concerned not just new airports or terminals but needed to be applied at several levels: new projects; "clip-on extras"; and "housekeeping". Her job was to maintain consistency and quality in all three.

At the airports authority, she has enjoyed working with architects YRM on Gatwick's second terminal, which opens in 1988, and with Norman Foster on Stansted, which "will be a very good airport. It was a good brief". She says Heathrow's Terminal 4 has been unfairly criticised, and that those who use it as passengers find it works well.

British Airports Authority has a policy of employing outside architects and designers. "It was the interface with consultants and their aspirations," she says. In that respect, British Rail — with in-house regional architects and their teams handling most of the workload — will be rather different.

Jane Priestman is in some sense an architect manque. A

scholarship took her to Liverpool College of Art and she started in design on textiles and interiors, working in Australia and then in the design offices of both Heals and Marks & Spencer. "I've always regretted not going into architecture, but right from the start I've worked solidly with architects".

Her ex-husband Martin Priestman is an architect, now a partner in the Stevenage-based Priestman Bennett Partners. They worked together on many jobs, including Hertfordshire schools in the 1960s. One son, Matthew, has recently qualified as an architect and is now starting up a practice. The other son, Paul, studied at the Royal College of Art and is currently setting up his own design group.

But Jane Priestman is, as she puts it, "very much an all-rounder", working also with sculptors and landscape designers. Indeed, the BAA improvement that gives her most pleasure is Darbourne & Darke's landscape work in Heathrow's Central Area, including the bus station. "It's the best work by far at Heathrow. I wish we could carry it further, for all the spaces between the central area buildings — which at Heathrow are very important".

By contrast one thing that makes her grit her teeth is "the generally disgraceful way the public treats its facilities" — litter and worse. But, she adds, "I'm a great believer in raising standards through improving how people behave: by creating responsibility and pride in what you're dealing with".

She cites a Henley Forecasting conclusion that rising standards in people's private environments are making them expect high standards in their public environment.

She believes that this trend will gradually influence people's behaviour for the better. It may be that the lack of litter and graffiti in Britain's airports reflects not only high standards of day-to-day and hour-to-hour maintenance, but also a public which is responding to those standards.

Her private pleasures include opera, travel and city architecture. She is encouraged at the trend to conserve and re-use good buildings in both North America and Europe.

She dislikes much of the pastiche architecture now in vogue in London, but on the

other hand is not an admirer of Richard Rogers' Lloyd's building. "It looks magnificent at a distance, but fails at street level. Its relationship to Leadenhall Market is an insult to the pedestrian".

Perhaps Victorian street-scapes are one of the reasons why she lives in Islington; another is that this inner London district is a "mixed society". It will certainly be convenient for her new British Rail job.

Priestman furthers her crusade for design and design management to be treated more seriously in Britain in a variety of ways — lecturing to art college BA and MA students,

judging for the Design Council, and recently as a member of a NEDO committee chaired by James Pilditch which aims to bring design and industry closer together. She has recently cut her commitments "because I like to spend some weekends with my family".

Priestman is an agreeable, lively and remarkably young-looking 56. Late, she says, to be changing jobs. "It's interesting that IIR should be taking on someone at my age". It is likely to be an education for both parties, but it will, one suspects, prove even more of an education for many BR managers than for her.



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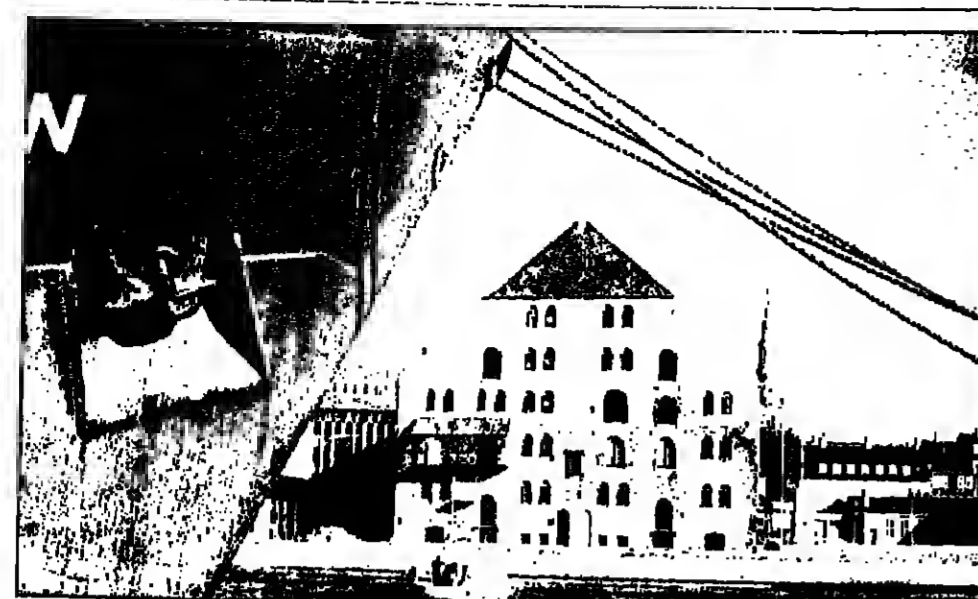
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## Denmark



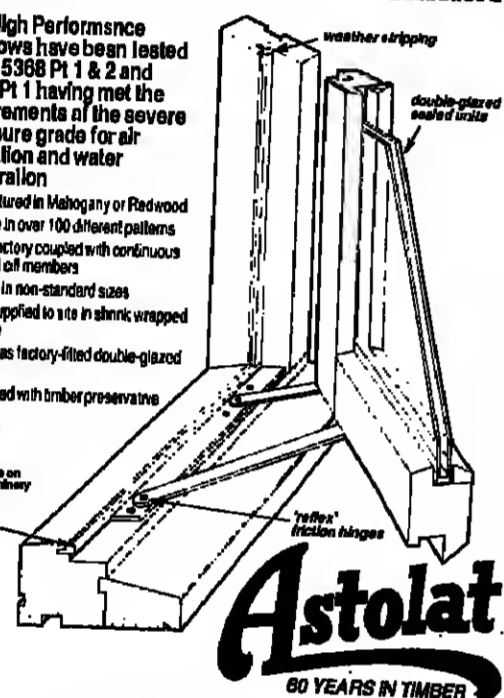
The exterior of the 19th century warehouse was scarcely altered. The roof was relaid and dormers rebuilt.

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DENMARK's new Centre for Architecture in Copenhagen's waterfront is a splendid blending of the old and the new in the country's architecture.

Located in a 19th century warehouse known as Gammel Dok Pakhus, in the old Christianshavn section of the city, the centre preserves all the original beam structures. The exterior was scarcely altered. The great roof was relaid, and many of the dormers rebuilt, giving a greater daylight access to an unusually deep building.

The heavy rustic structure has been retained and most of the floors have been sanded and bleached, and the walls are mortar-brushed and painted white. Architect Erik Møllers has produced an environment which centre director Hans Hartvig Skaarup believes will help produce a further leap in Danish design.

The building fell vacant 10 years ago, and was bought by the state. It was intended to use the site as part of a new complex for the nearby ministry of foreign affairs.

But external events produced a dramatic change in the impetus of Danish society, and led ultimately to support for an architecture centre.

The oil crisis of 1973-74 told the Danes that their rising standard of living was dangerously conditional on imports of energy and raw materials. Danish architects had an "old dream", as Skaarup puts it, of a centre similar to the ones the Finns and the other Scandinavians already had. But when they took their plan to the ministry of housing in 1982 they could not have imagined the response.

Within three weeks the Gammel Dok was made available, along with 42 million kroner - around £10 million - for the



1,300sq m on two levels is available for exhibitions.

## Designer's showcase

rehabilitation and conversion work, and the running costs for the first three years. What the government saw in the centre was an international showcase for the Danish construction industry.

The export of Danish design provides much-needed foreign currency, and practical people as they are, the Danes have turned architecture into a real money-spinner abroad.

Henning Larsen's first prize in the international competition for the ministry of foreign affairs in Riyadh, Jern Utzon's prize-winning Kuwait parliament; Arne Jacobsen, Dissing & Weitzing's national bank in Kuwait; the prize-winning scheme from Skaarup's own practice for a bazaar in Abu Dhabi - prestigious projects and vital earnings for the Danes.

Skaarup's own practice has seen its work abroad expand from the Middle East, to Africa and now to Malaysia; 60 per cent of its fee earnings are from overseas.

The Danish Centre for Architecture was established as a private foundation by the Federation of Danish Architects, the Danish Association of Practising Architects, the Danish Association of Consulting Engineers, the Society of Engineers of Denmark, the Federation of Crafts and Small Industries, the ministry of housing, the ministry of cultural affairs and the ministry of

foreign affairs. In the architects' part of the building - the other half is used as workshops for artists and crafts - there are two levels of exhibitions, about 1,300sq m, a restaurant, an international bookshop, and an auditorium with seats for up to 200.

Another level comprises the administrative area, meeting rooms for courses, seminars and conferences, and magazines are available in the basement. One floor is given over to the Danish Building Export Council, which plans and co-ordinates all Danish construction activities abroad. But no one should think that the centre is there simply to boost exports, Skaarup explains.

"We wanted a centre from where we could work for an understanding of architecture, an understanding of what good design was," he says. "How could we show the Danish people, for example, what is good and what is bad? Next year, for instance, we are going to have an exhibition entitled 'It's Your Choice'."

"It's about what is good and what is bad in architecture and design. We are going to raise one million kroner to produce the exhibition."

Skaarup and the centre are also determined that the exchange of international exhibitions will become a feature of Gammel Dok. "Our second exhibition was about the work

of the famous Swedish architect Gunnar Asplund, who, in 1940, we got the Swedes. At the moment, working on an exhibition, Steen Eiler Rasmussen, wrote the London book."

Skaarup believes it is to say how successful it is. But thousands of visitors have taken away from the centre of old Copenhagen in Gammel Dok.

"They are coming to see these Danes are doing, and really trying to get out of the deeply involved in export before? And we must say, 'we are'."

Skaarup says that one of the main reasons for the centre's success is that it is a high standard, judging by the number of international competitions won. "We believe the centre provides the conditions for further development of architecture. The professional whole is beginning to be used, and the use of the centre is beginning to be used."

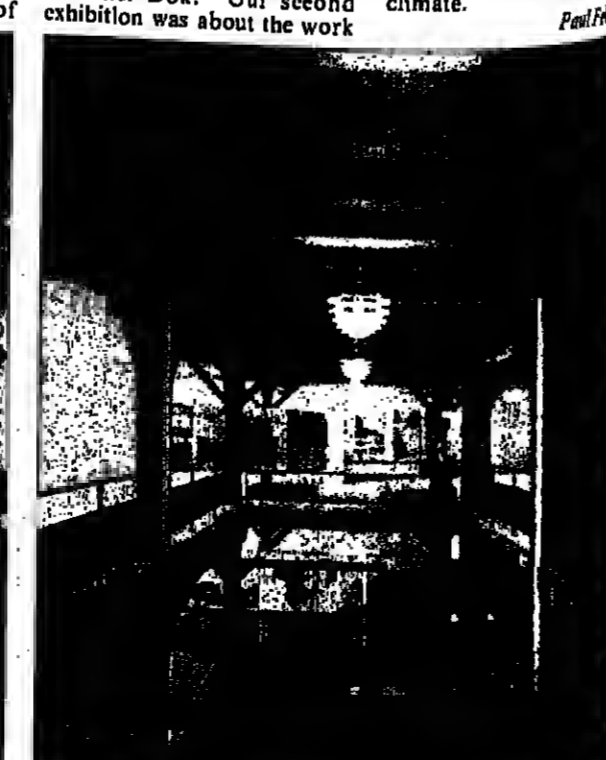
"It is a milestone exhibition because our Greenland Technical Organisation is moving Greenland on January 1st. It is a great part of the exhibition go with them."

And they never forget export market. The centre is to sell the exhibition to Alaska and the Soviet Union that they can see how the architects have developed technique of building in a climate.

Paul Fildes



Above and right: most of the floor has been sanded and bleached and the walls are mortar-brushed and painted white.



THE Danes never tire of telling the rest of the world how to do things better, especially when it comes to building science.

Of course, it's partly to do with selling more abroad; and for a country with a raging balance of payments crisis, that is no bad thing. What the Danes also want to get across is the fact that they have had some outstandingly successful policies over the last decade.

And the country's pride and joy is the astonishing changes made in the use of energy for heating buildings, both in terms of space and water. Even a statistical presentation makes you sit up and take notice; the figures were enough to send department of energy officials scurrying off to Copenhagen recently to find out how it is done.

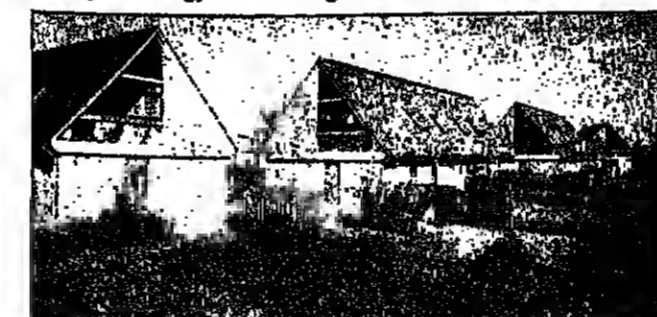
Domestic heating accounts for 28 per cent of Denmark's total energy consumption; that figure is 30 per cent lower than the 1975 level.

Allowing for the increase in heated area, the saving amounts to no less than 47 per cent per sq m. The achievement has been accomplished through a complex, yet sophisticated energy conservation programme that at the same time encourages good as well as experimental design.

The story really begins in 1973, when Denmark was hit for six by the oil crisis. A country which lived almost entirely off imported oil, Denmark saw its new prosperity disappearing. Grants of about £300 million were made available for energy-saving measures in houses, flats, shops, commercial and industrial buildings during the period 1975-1985.

But the real breakthrough came at the end of the 1970s. In February 1979, new building regulations came into force. The Danes believe they are among the strictest in the world. Insulation requirements for new buildings were doubled, and they have got tougher still.

For example, a 100sqm house must only use about 9,000kwh a year for heating and ventilation, plus energy for heating



Superinsulation on this housing estate in Gørtinge designed by Børge Kjær consumed 60 per cent less energy than normal insulated houses.



The occupants of this property in Copenhagen decided to build a glass facade over the extra yard side of the building which faces South.

## Energy efficiency — probably the best

domestic hot water. In all, that corresponds to annual oil consumption of 1,300 litres.

In 1981, parliament passed the Heat Inspection Act, with the principal aim of bringing all pre-1979 buildings up to the energy economy standard of new buildings. The grants under the act triggered off an investment explosion. Almost £1,000 million was invested in the housing sector in 1981-85 alone, with grants accounting for about 20 per cent. Energy consultants were recruited in their hundreds by the Ministry of Housing. They had to be practising architects or consulting engineers with at least five years' experience.

Armed with a statutory list of conservation measures, the 900 consultants inspect properties, and report on the energy measures needed. They even advise on how to raise the money to do the work.

About 40 per cent of all houses and flats in Denmark have undergone an inspection. Since January 1985, all property owners have to inform prospective buyers about a building's energy condition, and that means getting an energy certificate from the consultant. The public sector falls under the legislation too. All public buildings have to be brought up to a reasonable standard of energy economy by 1990, and £150 million has been spent on them in the last four years.

The energy policy has become integrated into urban renewal programmes. Local councils can decide that energy-saving measures shall be carried out in residential properties that are not up to standard. A council can also decide that a block of flats should be connected to the

district heating system, and grants are available for all works covered by such decisions.

In private rented properties, tenants can demand a heat inspection, and force the landlord to carry out the work if they agree to a rent rise to help cover the cost.

The Danish Building Agency is conscious that some measures are carried out with "insufficient respect for the architectural values that exist even in rather anonymous buildings". So that the DBA, the department of the housing ministry responsible for the co-ordination and development of this work, has been campaigning for "improved renovation practice", aimed at councils, architects and owners.

A new scheme in Skive, Jutland, comprises 52 one-storey and two-storey terraced houses and four detached houses. The closely-grouped houses are supplied with low-temperature district heating, which is shut off during the summer. Twenty-eight get their hot water from electric water heaters. 22 are supplied via heat pumps and the last two by a solar heating unit. The first year's results have been promising, with consumption averaging 5,300kwh a year for a 100sqm house.

Energy conservation is only part of a success story which saw parliament vote last year to reject nuclear energy in Denmark. In 10 years, Denmark has cut its dependence on foreign sources of fuel by half, intro-

duced windmill technology on a large scale and pioneered other forms of alternative energy.

Last year, the Danes sold 3,000 windmills in America. Danish utilities will install a wind power capacity of 100MW during the next five years. District heating for space and water heating has risen from 30 per cent in 1972 to about 42 per cent in 1982, and now stands at 44 per cent. The massive project is responsible for the few traffic hold-ups in Copenhagen.

Five central local councils have combined to undertake a £200 heating project that involves laying 50 kilometres of tunnels under the city.

It is said to be the most extensive warm water system in the world, and will serve 200,000 homes and 500,000 people.

The town of Ringsted is in fact heated 100 per cent by non-fossil fuel. Half the energy is provided by an automatic plant run on surplus straw. It is one of 25 such plants in Denmark. The rest comes from recycling waste.

Paul Feldman

"A booklet, 'Denmark Uses Energy Better', can be obtained free from the Danish Building Agency, Stormgade 16, DK-1470 Copenhagen K.



Denmark has introduced windmill technology on a wide scale.

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# WYNDY CITY

Edinburgh's Old Town is the subject of a strategic conservation plan. Edwin Johnston reports.

THE architectural identity of Edinburgh's Old Town derives from a combination of its historic buildings, the organic qualities of its medieval street plan — enriched by a pedestrian network of closes and wynds — and above all, the unique topography of its urban setting in which it is juxtaposed across the Waverley valley with the formal discipline of the architecture of the Georgian new town.

Elevated on an elongated ridge, the Royal Mile descends with a gently curving street plan from the castle on its prominent outcrop on the west, and the lofty tenements of the Lawnmarket, to the Palace of Holyroodhouse at the foot of the Canongate to the east.

Embracing two valleys, its historic atmosphere and picturesque qualities are enhanced by two further aspects, the varied relationships of bridges with buildings that span outwards to the north and the south, and the delightful views

of the city that range from panoramic prospects to glimpses of the distant townscape seen through a narrow medieval close.

Today, the Old Town fulfils a number of key roles in the life of the city. For example, it is a centre of city and regional government administration, and the law courts. Along its southern boundary are sited the educational institutions: Edinburgh College of Art (West Port); Heriot-Watt University (Grassmarket); Edinburgh University (Chambers Street/Cow-

gate); and Moray House (Canongate).

But the Old Town is also an important tourist venue within the UK as a whole, and a measure of its expanding role at the heart of the Scottish tourist industry is reflected by the growing number of visitors each year to Edinburgh Castle, with 923,000 paid admissions in 1985. Overlapping with its tourist function, it is also a cultural centre, accommodating 10 museums, 13 galleries, and libraries. And with the provision of 42 venues, and the Fringe

booking office in the High Street, it also plays a vital role in the staging of the Edinburgh Festival.

But what is the condition of the Old Town today, when perceived not only as a unique historic area, and a focus of tourist interests and festival activities, but also as a living and working organism within the life of the city as a whole?

The findings of the *Old Town Study Report* of 1984, which followed a detailed survey of the Old Town, (sponsored by Edinburgh Architectural Association and Edinburgh District Council and supported by the Manpower Services Commission under the community programme), present a contemporary picture of the anatomy of the ancient capital.

The report reveals that the trend this century has been one of a continuing decline in housing and industry, with a recent decline in the Old Town as a regional shopping centre. In the past, the inhabitants of the Old Town suffered from acute overcrowding, but for a considerable period the trend has been one of depopulation.

In the mid-19th century, and before the social improvements initiated by Dr Henry Littlejohn, the first medical officer of health for the city, the population was more than 40,000. By the beginning of this century, however, it was reduced to 23,000. In the census of 1981, the residential population had fallen to its lowest level at 3,142.

The report also found an imbalance within the present social structure of the community. Nowadays, very few families live within the Old Town, almost one third of people are of retirement age, and 22 per cent, including students, live in some form of communal accommodation such as hostels.

The decline over a long period in population is also reflected, in some degree, in a gradual erosion of one of the key historic elements that have shaped the town plan — the medieval close and wynd. In William Edgar's

View of Edinburgh over a map of 1742, 337 densely packed closes and wynds opened High Street and the Canongate. By 1895, and partly as a sequence of clearance for new Victorian streets introduced following the improvements of the 18th century, 184 closes and 110 closes and wynds survived.

In recent times, change emphasis in planning have brought about new opportunities for restoring the historic fabric of the Old Town, and preparing groundwork for its future as a cultural and educational area.

The 50s and 60s were years when the community structure of the Old Town underwent considerable change as many families were decanted to the new housing estates on the perimeter of the city. But in 1977, however, the Old Town was designated as a conservation area, and since then, climate of opinion has been in favour of conservation and renewal and regeneration.

Following the publication of the *Old Town Study Report* in a public exhibition of the report in the City Art Centre, the setting up in 1985 of the Edinburgh Old Town Conservation and Renewal Committee represented a major step forward in the creation of an administrative agency, to

ulate conditions for the revival of the Old Town. The chairman of the committee is Sir Jamie Stormonth Darling, and its recently appointed director is the architect Jim Johnson.

Broadly, the remit of EOTCARC (funded by Edinburgh District Council and the Historic Buildings Council), is to promote and co-ordinate action for the conservation, social and economic revival of the Old Town. The interests of EOTCARC extend across a wide spectrum, and are concerned not only with the maintenance of the historic fabric, but equally with the nature of new development proposals.

It makes recommendations for grants towards the repair and conservation of the external and internal fabric of buildings, and also has an involvement with planning applications. EOTCARC seeks to work in close liaison with local bodies, and six of its members are elected from the Community Forum, which represents 12 Old Town community associations.

The priorities of the Old Town study, which provides the background for EOTCARC policy, established a need to build and balance the community structure; to encourage a mixed pattern of uses. For example, housing, shops, and small businesses in close proximity; to encourage the development of gap sites with new buildings sympathetic in design and scale to their historic context; and to retain, strengthen, and develop the potential of

the traditional pattern of closes.

With regard to the present condition of the physical fabric of the Old Town, the study also identified areas of specific need — the location of gap sites, and disused and underused buildings. In 1984, 17 per cent of houses in the Old Town were vacant as compared to 5 per cent in the city as a whole.

Looking to the future, Johnston comments on a need for two kinds of research studies that would provide a framework for action in the process of revitalisation. One is an evaluation of the potential for future housing provision within the Old Town, and which, perhaps, might also consider the different types of housing agencies that could be involved. And the other would be a study that seeks to provide a framework for the development of tourism, and which might need to look at such things as traffic, car parking, and hotel accommodation.

If one considers some of the recent and current developments taking place in Edinburgh's Old Town, then the picture that emerges would suggest that the processes of mending the historic fabric, the renewal, and of rebuilding the momentum. A neighbour of St Giles Cathedral is the restoration of Advocates Close by McMennan & Brown, awarded second prize in the 1986 RICS/The Times conservation competition.

On the eastern side of North  
continued page 20



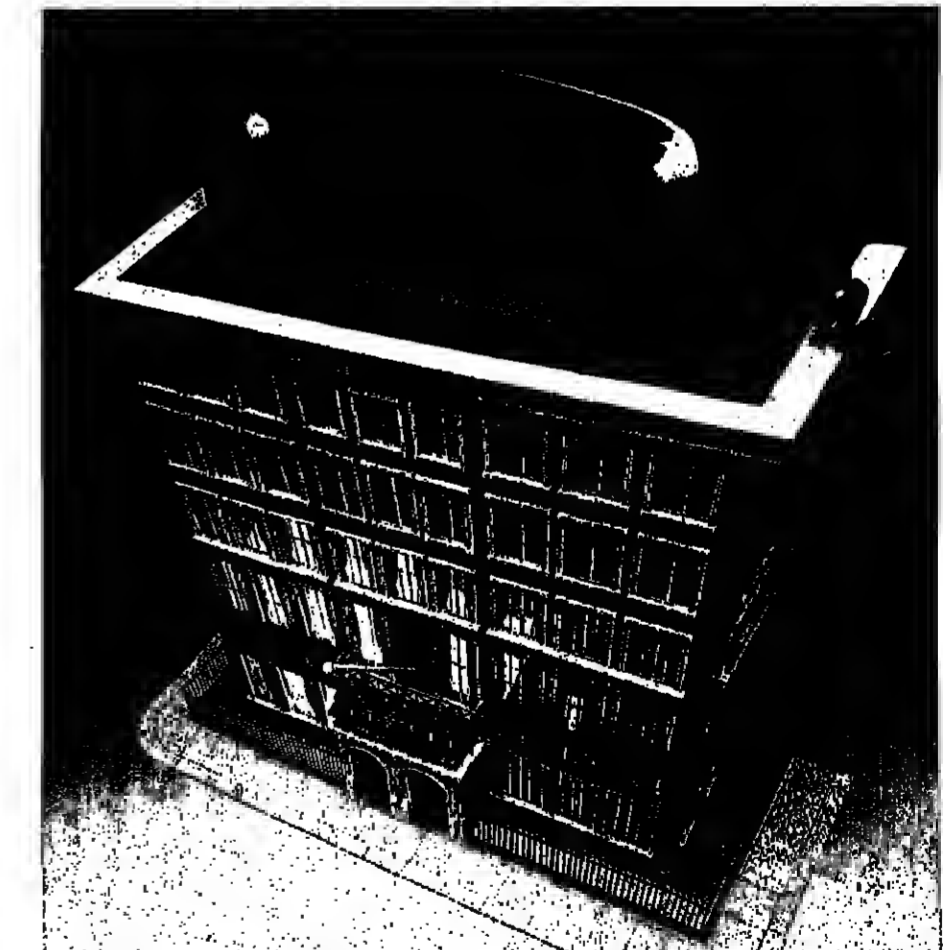
View of Edinburgh over a map of 1742, 337 densely packed closes and wynds opened High Street and the Canongate.



Views of the recently restored 369 Gallery from Blair Street.



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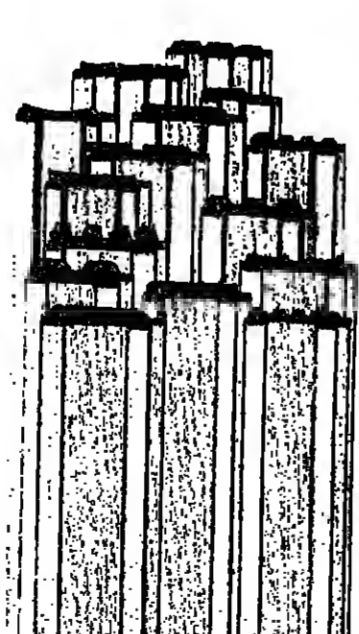
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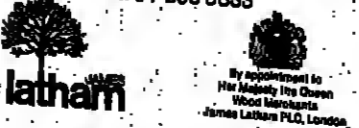
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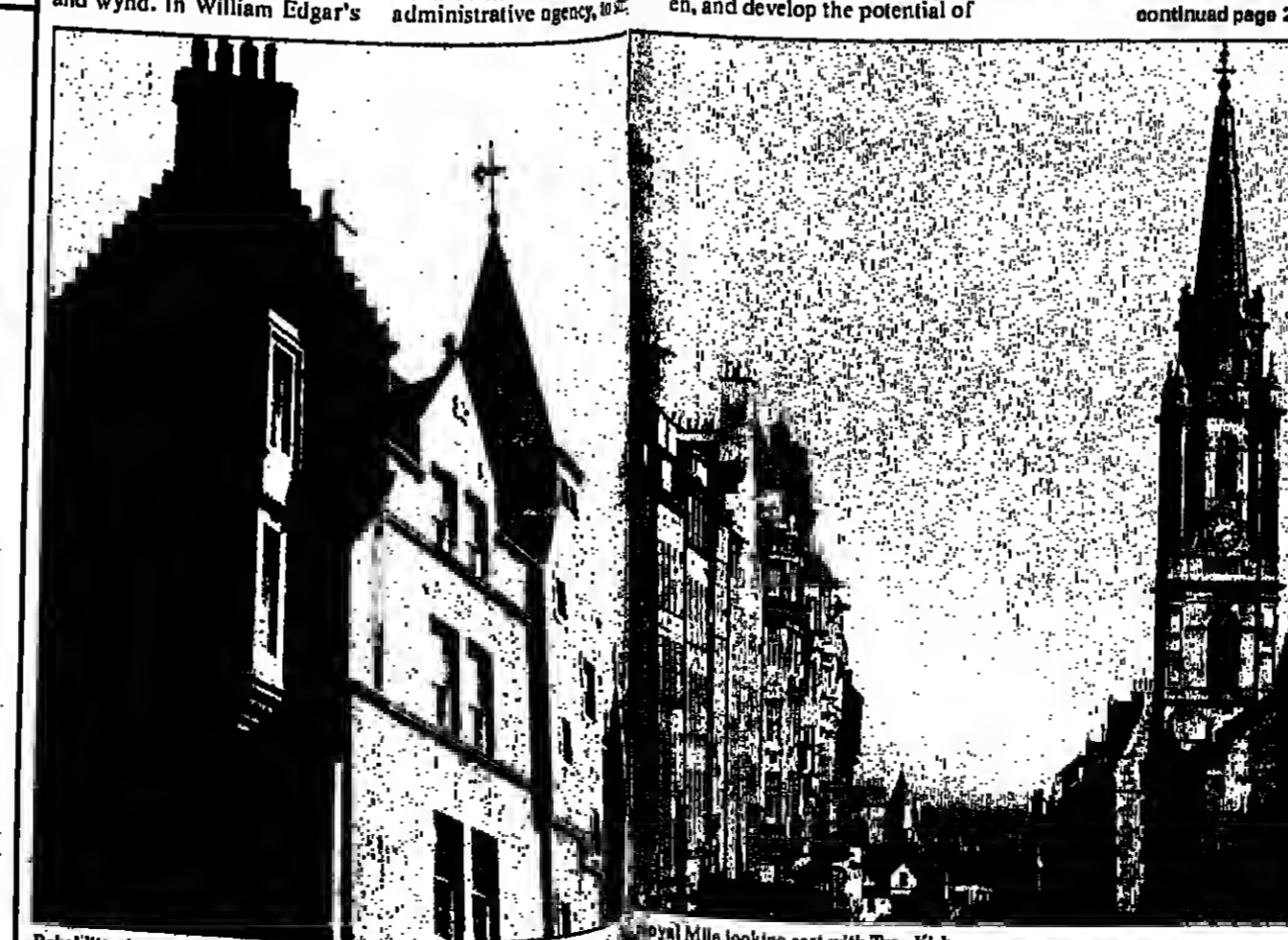
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Rehabilitation in St Mary's Street.

Royal Mile looking east with Tron Kirk.

# Wyndy city

from page 19  
The Carlton Highland Hotel has been refurbished and expanded to provide 220 bed spaces. And on the west of North Bridge, an existing corner building which returns on the junction of the Royal Mile and Cockburn Street has recently been converted to provide 55 upmarket private flats for sale.

South Bridge, which dates from 1788, is a structure of 19 arches flanked by buildings that back onto Niddry Street and Blair Street, and which take up the fall in ground level from the Royal Mile to the Cowgate. It links the Old Quad of Edinburgh University by Robert Adam to the North bridge where the vista towards the new town is closed by Adam's domed Register House.

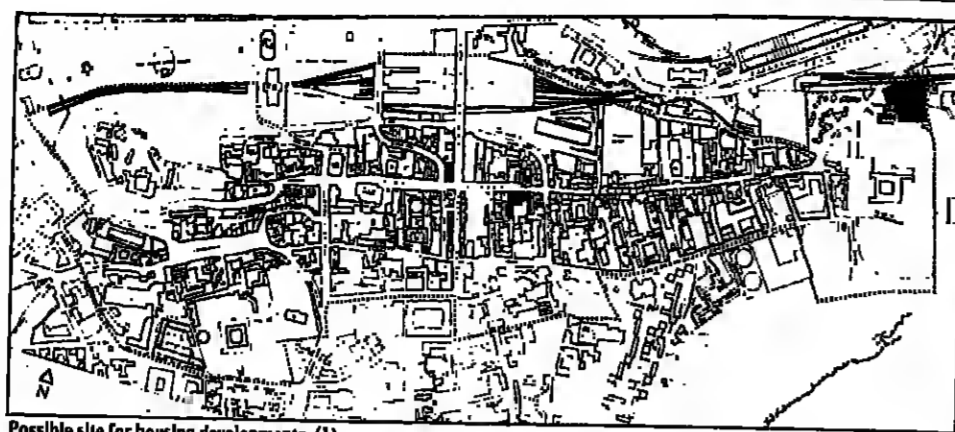
Over the years, the condition of the once elegant 18th century buildings have become much altered and dilapidated, and there has also been a decline in shopping. A preliminary conservation study of South Bridge has recently been completed,

and in the view of Johnson, this elevated street presents an opportunity for a co-ordinated conservation project, in which accommodation, now either vacant or used for storage purposes, might once again be returned to its original function as housing on the upper floor levels. Given the character of the original buildings, such a project would undoubtedly provide a much enhanced entrance to the Old Town from the south.

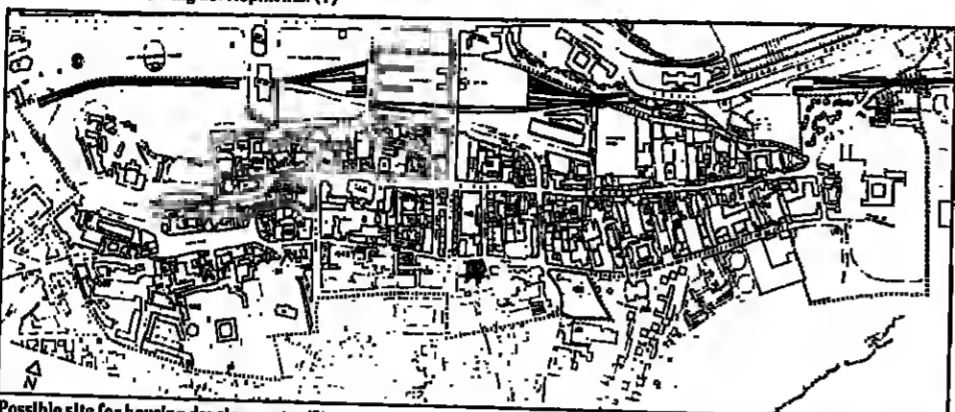
East of South Bridge, the most prominent gap site of the Royal Mile (0.48 hectares in area) is bounded by Niddry Street and Blackfriars Street. The site is the subject of a planning application for a new mixed development comprising housing (112 flats), car parking, office space (1,588sq m), and shopping, with a proposed pedestrian access via a bridge spanning Niddry Street, and approached from an entrance in South Bridge.

Nearby to the Netherbow, and adjoining the restored traditional buildings of Tweed-

## Edinburgh



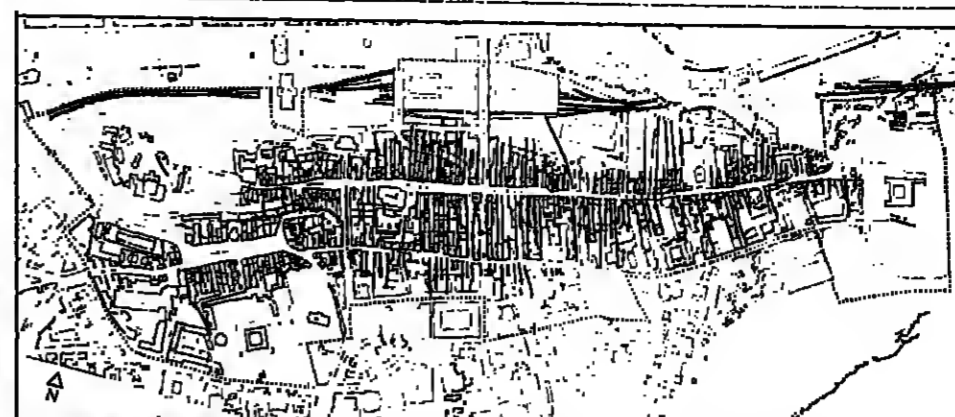
Possible site for housing developments. (1)



Possible site for housing developments. (2)



Restoration of Adam's Quay



Map showing number of closes in 1742.



Maps showing number of closes in 1984.

## Edinburgh

dale Court, is a new sheltered housing and rehabilitation development by Wheeler & Sproson for the Castle Rock Housing Association. On the street frontage, which retains an existing stone facade, a new home is provided for the Museum of Childhood together with shop units.

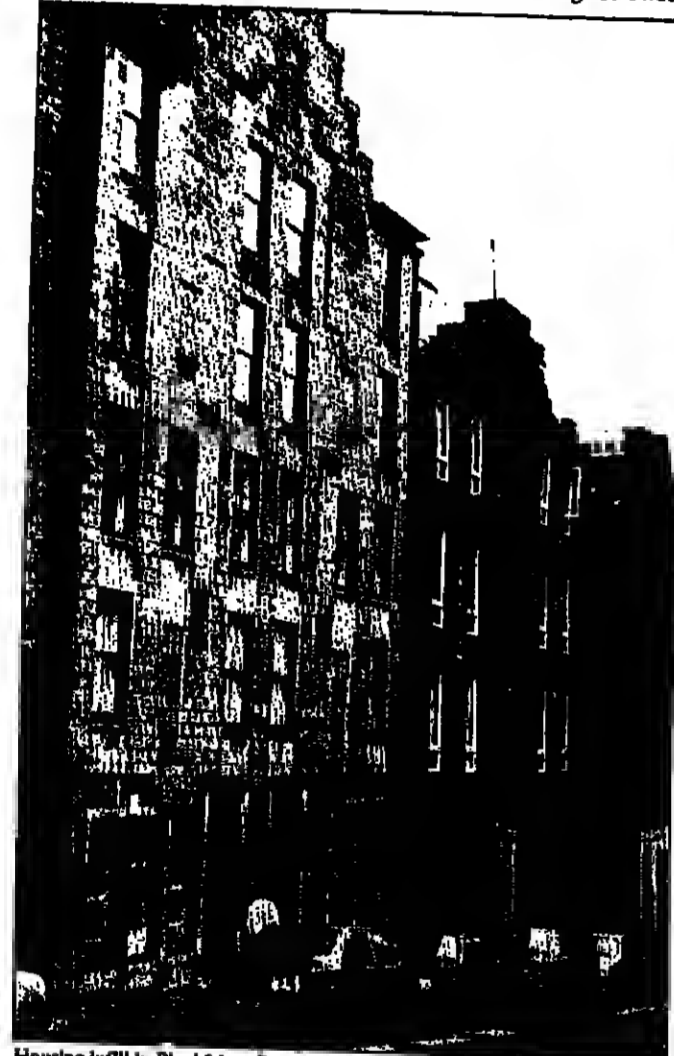
What was formerly an unsightly gap has been transformed by a six-storey building that successfully restores both the scale and continuity of the Royal Mile facade. The rehabilitation of housing in St Mary's Street and Jeffrey Street, and the stone cleaning of its Scottish baronial architecture has brought back new life and colour to a street once blighted by road proposals.

South of the street frontage of the Canongate is the Old Town's largest redevelopment site in proximity to the Palace of Holyroodhouse. It follows the closure of the Holyrood complex of Scottish & Newcastle Breweries, one of the Old Town's traditional industries. Scottish & Newcastle are considering approaches to redevelopment within the context of the Old Town planning and

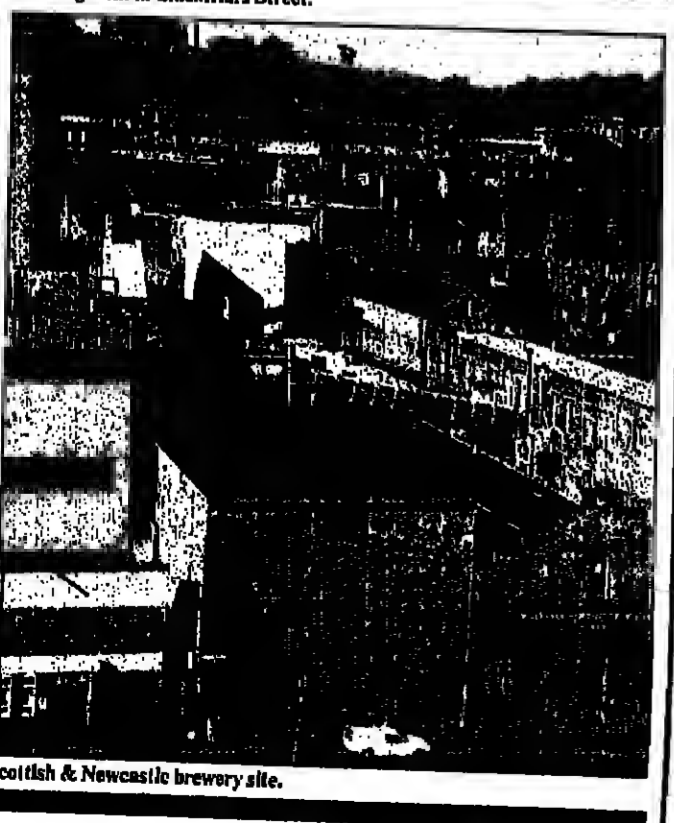
conservation strategy, which would provide an opportunity for a mixed development, including a housing component, and perhaps also, where possible, the re-creation of some of the former medieval wynds.

The Cowgate housed in the valley south of the Royal Mile is punctuated by the scale of the arches of George IV Bridge and South Bridge. A busy traffic thoroughfare, it links the open public space of the Grassmarket to Holyrood Road, and contains a number of gap sites, some overshadowed by the heights of adjoining buildings. But here too, there is evidence of the beginnings of renewal, in the restoration of a former Georgian warehouse, with its arched street facade, to provide new premises for the 369 Gallery.

A feasibility study into the provision of visitor reception facilities in Edinburgh Castle by the Boys' Jarvis Partnership, and a proposal to provide a new heritage centre in the redundant Tolbooth St John's Church in the Lawnmarket by Heritage Projects of York are two more examples of the trend to bring new life to Edinburgh's Old Town.



Housing infill in Blackfriars Street.



Scottish & Newcastle brewery site.

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View of Niddry Street at the rear of South Bridge.



Sheltered housing development.

Review

# THE BIG THREE

BD is inviting 200-word reader reviews of the Royal Academy exhibition. Here is the latest batch.

## Alan Phillips

AS one of my students pointed out, the title of the show "Foster Rogers Stirling" could have amusing overtones if we think of "Roger" colloquially.

As Stirling could never Foster Rogers it seems that the only way to prevent a double entendre is to settle for Rogers Foster Stirling. Either way, if not intercourse, there is certainly enough noetic masturbation to keep the average punter yawning with amazement.

The show itself does not seem to have been designed at all, but rather put together by the writer of *The Times* obituary column. Indeed on entering Foster's darkened mausoleum, I was beckoned to his somnambulist requiem by a wailing angel, chanting to an audience of four, reverently seated on a cemetery bench next door to the Hong Kong Headstone.

On fleeing to safety pursued by 3,000 models of the BBC, I fell headlong into a black plastic tank of water, which someone told me was Dr Death's apocalyptic view of the Thames. Staggering towards a silvery

construction at the end, still looking forward to finding "New Architecture", I was amused yet horrified to find the room dedicated to a 1986 remake of a 1953 *Eagle* comic animation, "Dan Dare meets the Mekons", complete with landing pads and a cast of thousands cheering from the new urban desert of the North Bank.

Architecture indeed! Let's find Mr Stirling—he builds with real stuff and puts colours on his drawings. But the disappointment continued. You simply cannot make a full-size three-dimensional collage without parodying the original. Indeed if you have to do it at all, do it outside in the courtyard where people can stand back, space can respect the solid and scale can be

reinstated. The "model" could not breathe any more than the stagnant slides (why can't photographers do better), which do nothing to celebrate a very fine building.

Alan Phillips is an architect, teacher and BD columnist.

## R W Clayton

THE Hype continues: the Signe Signe Sputniks of the architectural world march from strength to strength. Even on the London Underground we cannot escape train-size graphics; an extension of current architectural overkill.

It's obvious for everyone to see: well, anyone that's seen "Blade Runner", "Metropolis", or perhaps the mediocrity of the Queen video for Radio Ga-Ga.

Foster and Rogers have the answers. These architects claim to have people in mind when they design yet they produce such inhospitable architecture: it is indeed (re)visionary and inventive but then so was Sant'Elia some 70 years ago. It must seem curious to most that a vision of the future is so inescapably a vision of the past. The fascination with technology is an end in itself—it should not be the basis for an architecture.

The Meccano generation has a lot to answer for. The schemes of both are a reflection of this: a sad state of affairs. Rogers displays callous disregard for the city with the Lloyd's edifice which is clearly a reinforcement of the Modernist notion of building as object. As for the oil refinery on the Thames—I'll

stick with Charing Cross station, thinks very much.

Foster is slick; of that there is no doubt—I simply couldn't be moved to look at the multi-screened Hongkong Bank display. The music was enough to tell most it was an expensive waste of time. The BBC scheme is more interesting as it displays an inability to get to grips with the essential axiality (or indeed intended axiality) of the Nash masterplan. Urbanistically the scheme should be about closing off Portland Place in a scenographic fashion while at the same time turning the corner—a classic dichotomy which seems to have eluded the great man.

Stirling, on the other hand, is far more interesting, although at times far too heavy-handed (particularly with colours: recommend a course on Corb's use of colour and Mondrian for more primary concerns), he undoubtedly possesses the stuff of architecture. His is a conscious re-engagement with tradition and the nature of the city; his is an architecture of the "Promenade Architecturale" and the particularity of space; the strong figure in plan (in contrast to seas of isotropic space deconstructed with people, furniture and technology—where is the architecture?); and the undoubted clarity of the concept diagram wins through.

You can't help feeling that each scheme (Stirling's gallery and National Gallery extension) are overworked; too many ideas bordering on the garish in places. If these concepts were refined and made more elegant, instead of cluttered with gimmicks, a finer architecture would result.

The verdict: dejin-vin; expensively done; Stirling is worth looking at, the other two should build overseas. All in all, the money would have been better spent on expanding the "Forty under Forty" exhibition which showed far more inventiveness and is hopefully more of an indication of what the future holds.

R W Clayton is a Part 3 student at the Polytechnic of the South Bank.

## Christopher Want

"THREE Gods at the Royal Academy"—such has been the response of a critic writing in one of our dailies to the show. Certainly this is a response which the organisers at the RA have done their best to promote.

The introduction to the show presents the usual (Modernist) architectural history, from the ashes of which post-modern architecture rises phoenix-like in all its variety and splendour. Who are some of the finest exponents of this architecture? Our very own home-grown talent of the three, of course, who, as the organisers imply, "can bring excitement and delight back into our cities".

London, however, has not been one of the cities which has really understood the genius contained within its midst. This has not been through want of trying from our triumvirate. Rogers, for instance, (who of the

three seems to take the status the most seriously poses to alleviate London's problems by riverside scheme. His scheme and one which is avoided by simply providing better public transport.

But the exhibition is niggardly in its subject matter, raising any questions about the Message through space and its means and ends.

Christopher Want is a student at the East London Polytechnic.

## Ionel Schein

L'UNITE intrinsèque l'exposition est une réalisation et un caractère architecte. La nature "valable" apparaît à travers divers éléments forte pour s'agit d'abord d'ensemble seulement d'un turel Et quand on trois bâtiments réalisés trouve vite un dénom commun: la commune. On se trouve en présence d'architectures qui intègrent l'espace urbain, qui créent et le transforment et qui nent des "espaces de communication".

Cela est particulièrement pour la Lloyd's et la galerie, par rapport à l'environnement. Pour Hongkong & Shanghai, par rapport à l'espace urbain que l'architecture a engendré.

Rogers avec la Lloyd's vent une nouvelle urbanisme ouvre la voie à un tissu urbain "autre"; il n'a pas dérogé des projets! Stirling, lui, ne s'agit pas d'architecture, mais de nouveaux espaces urbains créés une continuité dans l'habitat les éléments d'une "communication urbaine". Forcé exprime à Hongkong la complexité du programme pour le bâtiment de la BBC.

Finalement, le projet de la "City Street" de Rogers montre ment qu'un urbanisme du siècle millénaire est en de trouver sa place.

Ionel Schein is an architect and urbanist in Paris.

## A L Davies

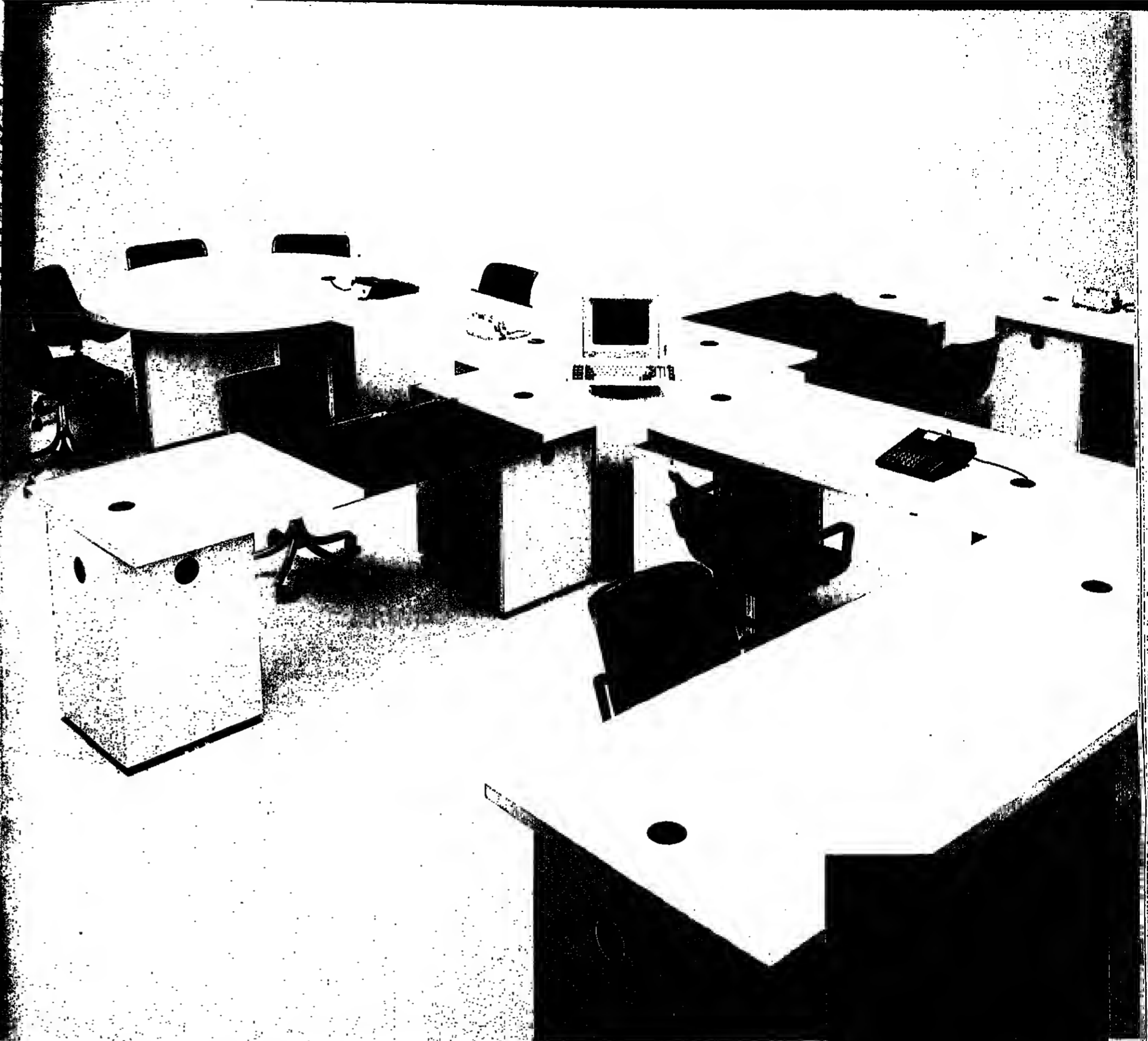
TO mount an exhibition of the scale and magnitude of Foster, Rogers, Stirling and the force is, to say the least, remarkable in the current state of seeming cynicism and uncertainty surrounding the attitude to the built environment. Hopefully, those who see it, and those who do not, will be stimulated by realising that there are people around who do care and are prepared to make candid statements.

Clearly the spin-off from discussion, argument and fully a reawakening of interest in architecture and planning, and realisation that there are untapped forces of talent able which are able not only to answer particular problems, but can also generate ideas and create specific answers to levels of the creative process.

In an age of mass communication dispensing humdrum material, it surely must be obvious that if any meaningful impact is to be made a qualitative approach should be adopted.

To write off an exhibition such as this as only for the boys is missing the point.

A L Davies is a partner in Jones Davies & Frost, Cardiff.



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## Hospitals



Each first-floor room opens onto its own terrace. (Pictures: Geoff Beekman.)



The first-floor sun-room is one of the most popular features at Lambeth.

# DISTRICT NURSING

In her second article on hospital building, Fiona Gorman looks at the emergence of community care centres.

STREAMLINING of the modern district general hospital has prompted the growth of community hospitals—in-patient and day care centres which owe a lot to the cottage hospitals of the past. Smaller Nucleus-type hospitals are not the sole reason for the re-emergence of this building type and, the Department of Health & Social Security would say, not the most important. That is the need for a more humane environment for the treatment of mentally ill, ter-

minally ill, the elderly and all those who require more nursing than clinical care.

But the cost-cutting of district hospitals planned since the oil crisis has meant that some departments in these non-acute areas which were previously catered for have been hived off into smaller satellite units. Some consider these as the "hidden costs" of the quicker, "cheaper" hospitals. The DHSS argues that it makes little economic sense to keep patients in highly technological hospitals where beds are at a premium, when

what they require is intensive nursing care.

Whatever the reasoning, the results are small-scale developments such as the Lambeth Community Care Centre and Whitlington Centre, designed by Edward Cullinan Architects, and the Mold and Ystradgynlais community hospitals created by the architects of the Welsh Health Technical Services Organisation.

The Welsh are taking the lead in establishing these purpose-built centres. The reason is geographical: so much of the

country is difficult to traverse that a network of smaller scattered units makes the health service more accessible. For the Welsh the catchment area for one hospice may be as much as 50sq miles, while in London it is unlikely to be more than 4 or 5sq miles.

There are only a handful of the hospitals in England and Wales, but it is a trend which the department wishes to encourage. In a health service programme where the aim is to reduce the average hospital stay and to ensure that each patient is

given the degree of care he needs at the right time and in the right place, community care centres fit in.

And the range of people catered for in places such as Lambeth and Mold may extend, says the DHSS, to more post-operative patients transferred after a day or two from conventional hospitals to rehabilitation. There is evidence to support the idea that patients who need to convalesce do so more quickly in a care centre than in busy clinical hospitals.

Here patients can be cared for under the supervision of their own doctors, without the rigours of a regimented hospital timetable of visiting hours and meal times. Patients are encouraged to have as great a say in the management of their treatment as possible.

But for all the department's enthusiasm for Lambeth and Mold, community care centres are not an area it gets directly involved in. If the boys at Euston Tower or Alexander Fleming House produced dntipacks and guidelines in the same ways for Nucleus it would, says the department, be the death knell of the concept. It has to come from the community.

The catalyst for the Lambeth Community Care Centre was the proposed closure of the Lambeth Hospital in 1979. Both the West Lambeth Community Health Council and the local

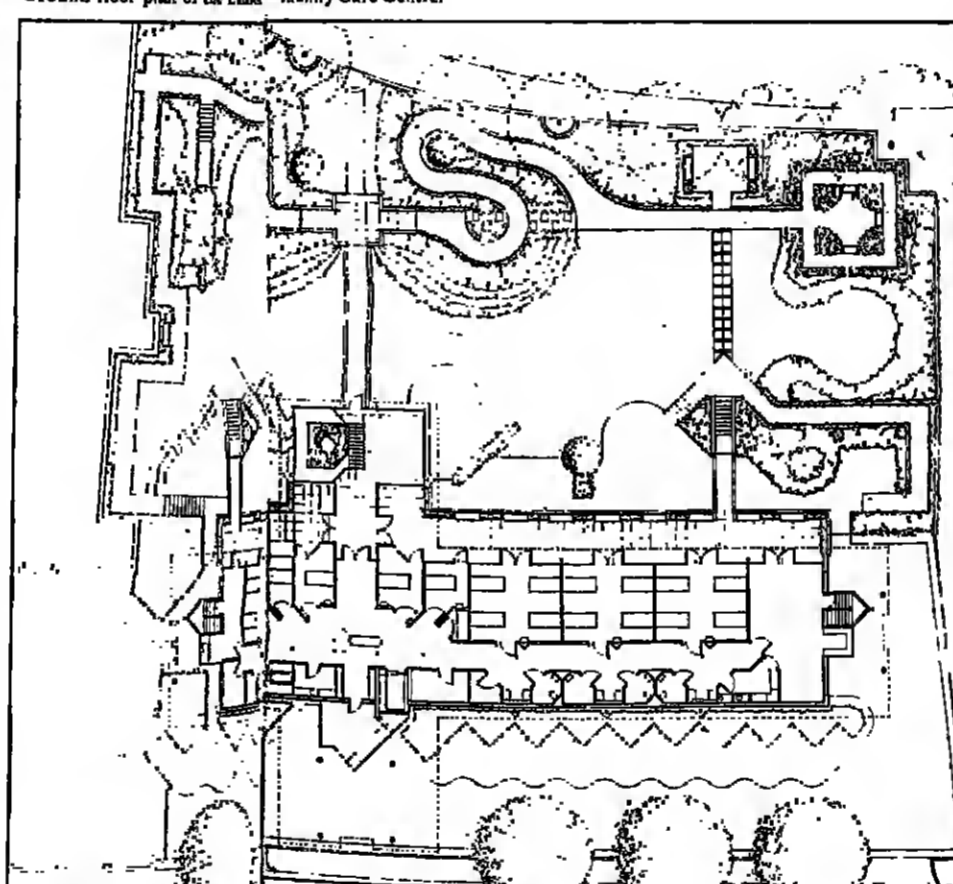
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First-floor plan of Lambeth

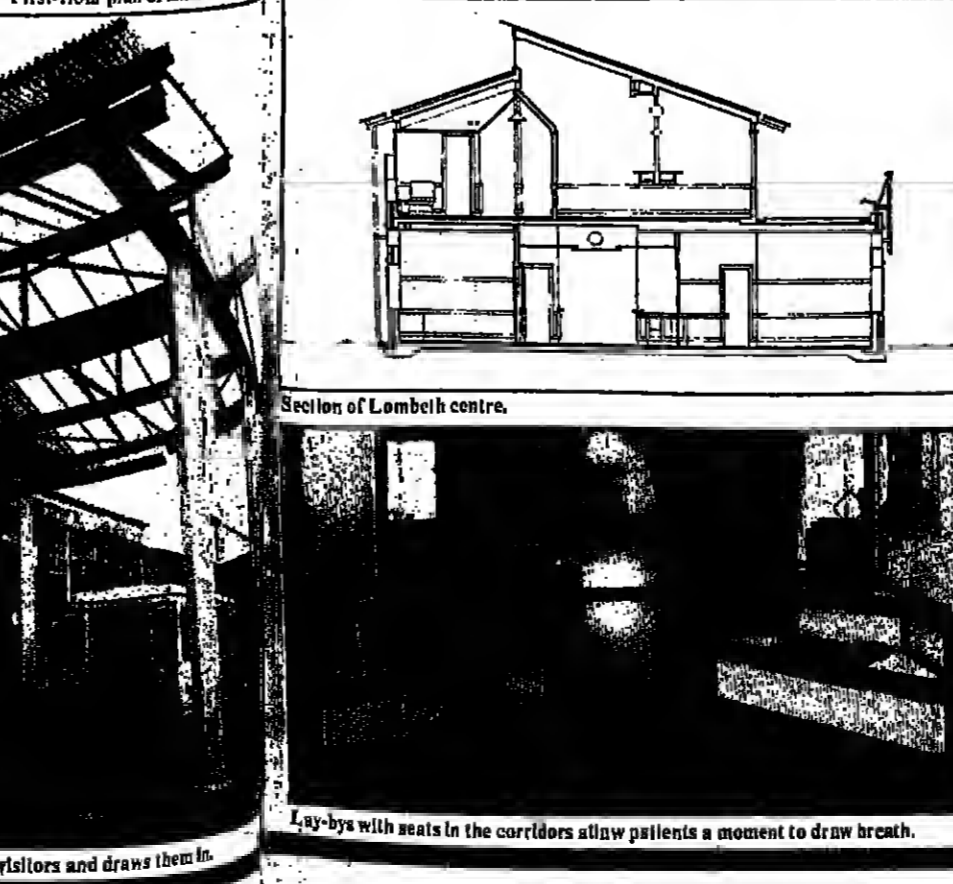


The porch at Monkton Street embraces visitors and draws them in.

Ground-floor plan of the Lambeth Community Care Centre.



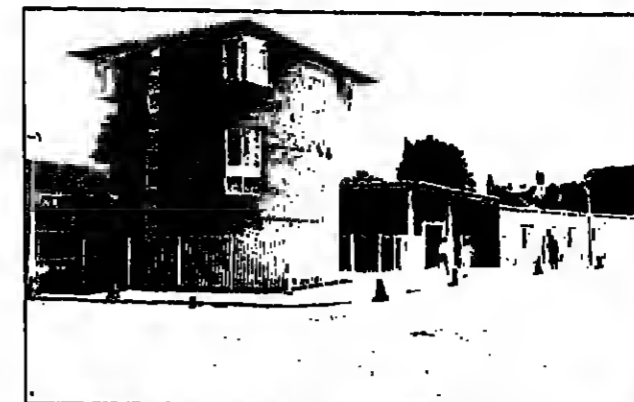
First-floor plan of Lambeth



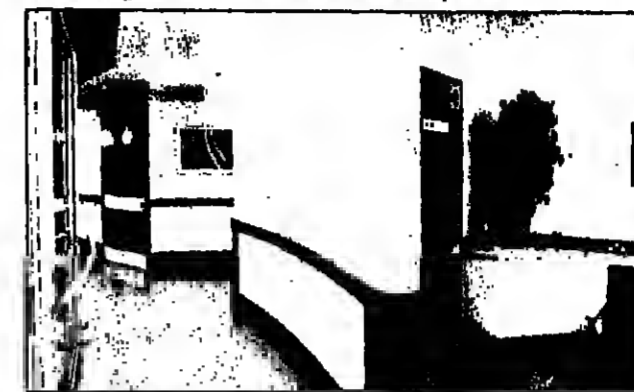
Section of Lambeth centre.

Bay-bays with seats in the corridors allow patients a moment to draw breath.

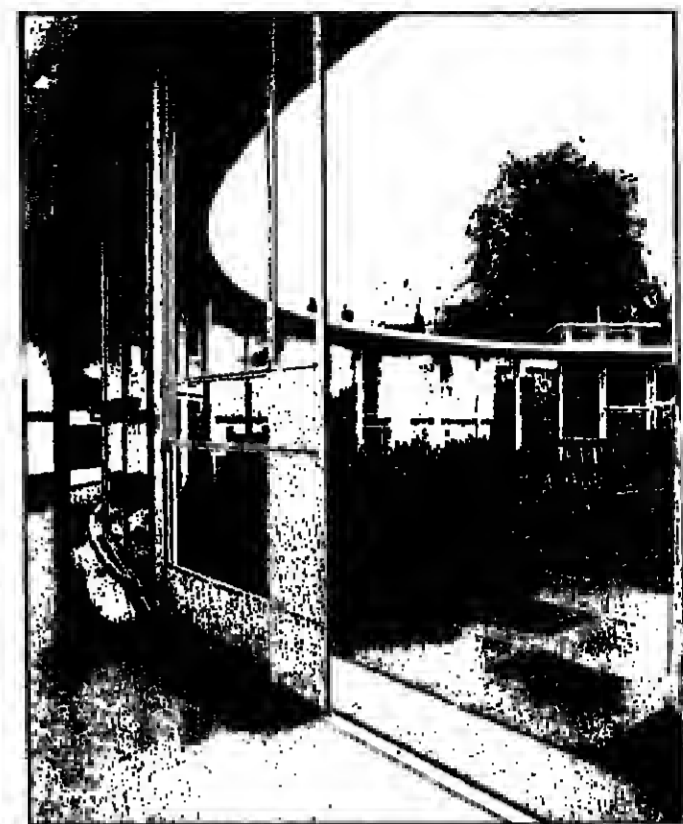
## Hospitals



The Whitlington Centre caretaker works from the top of the tower.



The minimum of doors have been used. (Pictures: Geoff Beekman.)



A glazed corridor surrounds the central courtyard.

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## Hospitals



Massive eaves exude a warm sense of protection at the Whittington.



Coursing has been used to reduce the apparent scale at Mold.



Whittington Centre seminar and staff rooms jut into the courtyard.

## District nursing

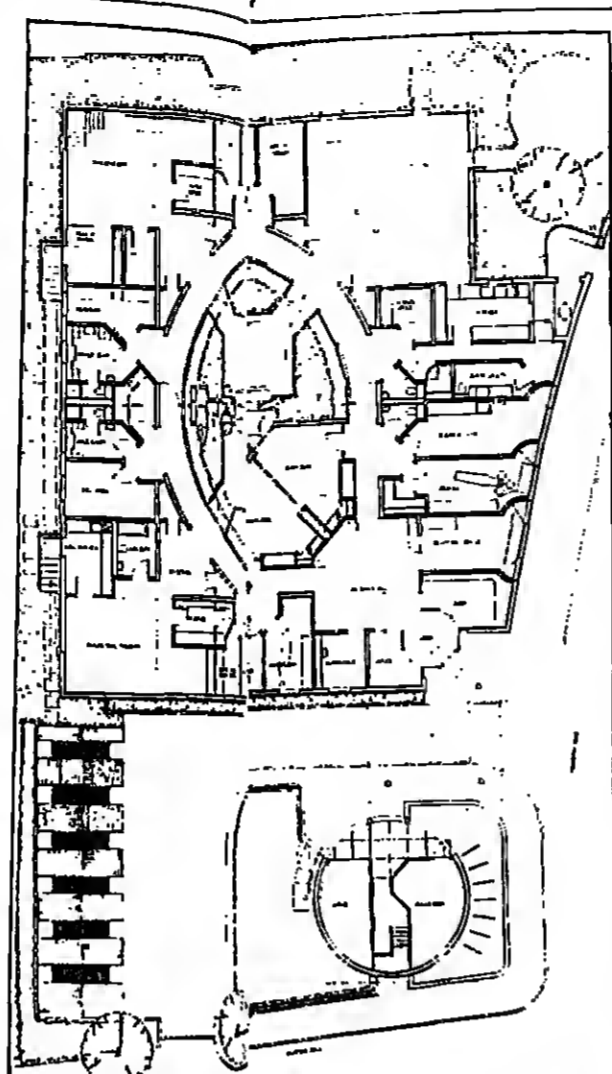
from page 24  
people wanted an alternative — as unlike the "hi-tech" of teaching hospitals as possible.

The centre was built on the site of the old Lambeth Hospital in Monkton Street and designed by Edward Cullinan Architects, who had no previous health building experience. This was unusual in a sector where most commissions go to the same group of experienced architects, but a new approach was required and the practice's reputation is based on that consideration.

The centre was intended to bring together many disciplines of health care — from GPs, to voluntary workers, local authority community nurses, therapists and social workers — in an environment which all would enjoy and feel able to work together in. Lambeth wanted a single-storey building but, says architect Robin Nicholson, "We wouldn't build single-storey in Lambeth. It wouldn't work in the street. We weren't prepared to compromise that even for the health service."

The architects undertook a long series of consultations to thrash out the details and to work out the relationship of various departments to one another. Such was their commitment that they submitted about 10 schemes over a two-year design period. The architects rejected the racetrack planning principle, because it produces a large number of small rooms and only a few large ones, in favour of a linear solution running along Monkton Street and turning inward to the tranquillity of a garden beyond.

While the scale of the centre is much smaller than a traditional hospital, in form it is far from "domestic". The red and yellow stock bricks of the ground floor give way to dry lightweight materials, steel frame and plasterboard partitions. The



Ground-floor plan of the Whittington Centre.

decision to cross-ventilate all of the four-bed wards demands that one roof rises over the opposite. At the centre of the over of the roof is made in light to provide a long, welcoming porch at the front and a popular sun-room at the back.

The roof extends to allow for one of the most striking and unusual features — yellow translucent eaves which bathe the walls and paths in warm light. The facilities for the department are found on the ground floor, with offices facing onto the street and therapy and consultation rooms overlooking the garden. The construction period highlighted that it was unnecessary for patients to

The architects admit that the building was not cheap — they had to make a pro-rata reduction of 20 per cent to satisfy the DHSS quantity surveyor — but cost was never the prime consideration. The centre was, says Nicholson, only designed as a solution to that site and not as a formula and costing which could be applied over and over. "You would never," says Nicholson, "specify yellow eaves as a standard, and yet it has been one of the most successful elements."

The attitudes of the local people and patients are not the only evidence of the building's success. Cullinan was asked to design a day centre for the elderly, opened this summer. The Whittington Centre was proposed to maintain the health and rehabilitation of the borough's large elderly population and to keep down the number of people being put into institutions. The centre is jointly funded by the Company of Mercers — through its Whittington charity — and the trustees of St Thomas, and let at a peppercorn rent to the West Lambeth Health Authority.

The site at the junction of the Rufford and Polworth roads was picked for its accessibility and because it was large enough for all the departments to be catered for at ground level. Many of the inter-departmental relationships of the Lambeth centre have been maintained, but the arrangement has developed from a street to a square distorted on the Polworth Road border. The focus of the centre is a tranquil, eye-shaped court with seminar and staff facilities breaking into the circle. A glazed corridor rings this, giving access into each of the therapy and consultation rooms. There are few doors in this £925,000 centre, so people can mingle as much as possible, in keeping with facilities such as a hair-dressers. The architects have also provided quiet, secluded areas for examinations and therapy.

Cullinan has drawn on some of the Monkton Street ideas and toned them down or developed them. The lay-by concept in the corridors where people can pass,

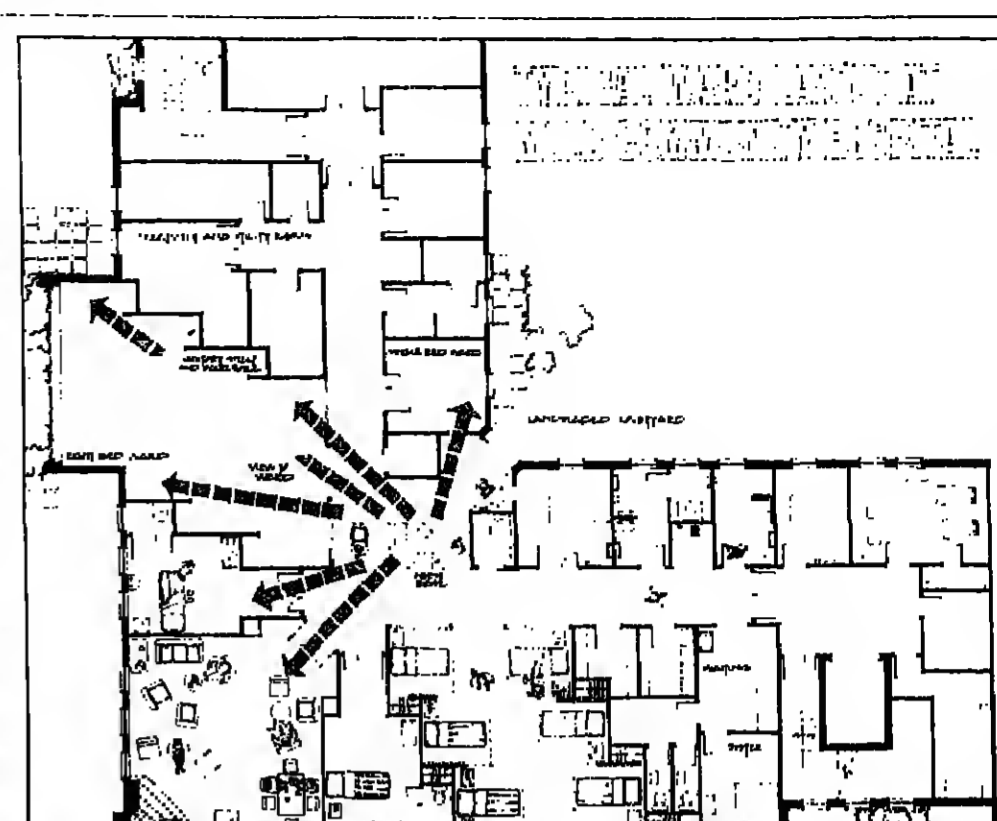
test or converse makes a second appearance. "The architecture of the Whittington Centre," says Nicholson, "is calmer than the Lambeth centre. It is less frenetic, the colour scheme is quieter."

A three-storey "lighthouse" for the caretaker marks the entrance and sets the style for the centre beyond — a stock brick-work wall with red-brick coursing and a flat roof with extended eaves tending a protective warmth to the development.

The approach of the Welsh health authority architects at Mold differs greatly from Cullinan's, but is held in just as high esteem by the DHSS. They strove to provide a building which in scale and appearance would be as reassuring as possible.

The new building lies on a small site in the grounds of the former cottage hospital. The original idea to refurbish this proved uneconomic. A single-storey structure of brick and tile, the Mold Community Hospital is at once unimposing, even inviting. The building is designed around two courtyards, allowing natural light and

continued page 28



Typical ward arrangement at Mold.

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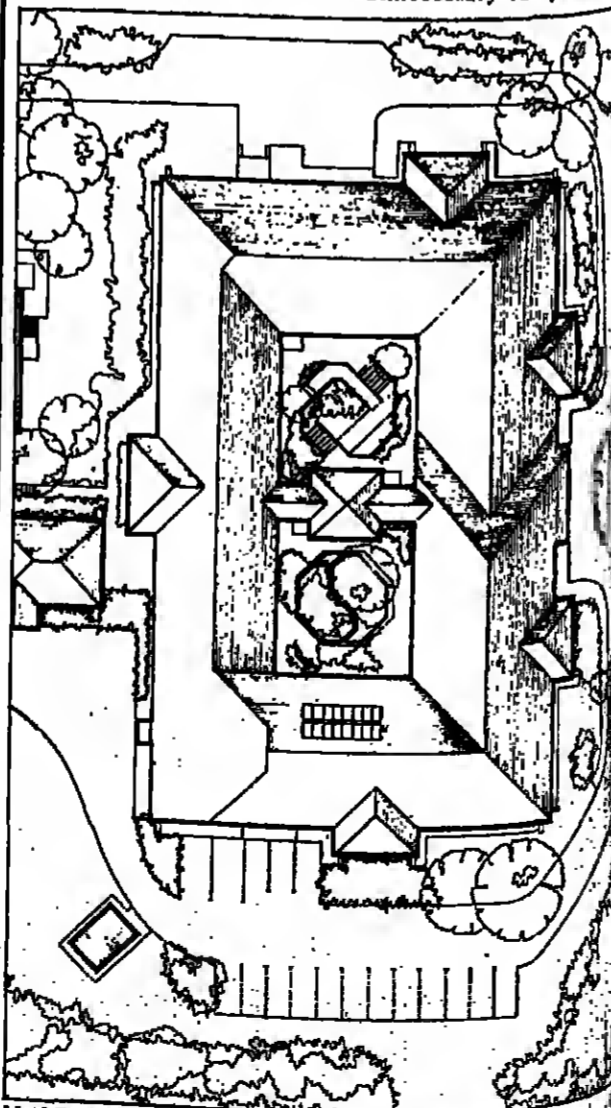
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Mold Community Hospital site plan.



The pitched roofing and brickwork at Mold is unashamedly "domestic" in style.



Exterior wards at Mold afford privacy as well as scope for surveillance.

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## District nursing

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The courtyards provide an incentive for patients and visitors to look inwards when the external view is unrewarding. Car parking needs made soft landscaping difficult, so flower-boxes have been incorporated wherever possible and planted areas raked up to soil levels to soften the edges of the development.

The architects were keen to produce something which was obviously of the community. The buff brickwork and red-tiled roofs pick up on the styles of local buildings, and the apparent height of the new building is reduced by the diagonal bonding of the red brick coursing. The bays formed by the played buttresses at each corner of the building also seem to knock down its scale.

Inside the timber ceilings, facing brickwork walls, linoleum and quarry tiles all contrive to remove the institutional edge for people who would much rather be at home.

Only in the treatment rooms does floor vinyl prevail. Additional funding from the League of Friends meant that one of the courtyards could be developed as an informal physiotherapy area, a greenhouse and garden could be included to help rehabilitation and a hairdressing salon and pavilion give people an opportunity to meet and relax.

Clwyd Health Authority wanted the Welsh Health Technical Services Organisation architects to develop a new ward based on the Nightingale scheme of four-to-six-bed bays. The aim was to provide each patient with a mix of personal and surveyed space with as many beds as possible in the nurse's view. The wards were to be less regimented than traditional wards and to allow for men and women in one ward. The day rooms and ancillary areas were to be centralised to cut down on the distance nurses would have to travel.

The architects' solution was to produce two 20-bed units in

stepped wards of eight beds and four single bed wards clustered round the nurse base. From the console the duty nurses can keep an eye on 16 patients in the echelon wards while they have a side wall as well as the bed head wall creating an arc of personal territory and privacy. The £1.3 million hospital has been a great success with local people since it opened in the beginning of 1984 and it has been awarded the 1986 National Eisteddfod gold medal for architecture.

The health authority architects followed up their success at Mold with a second community hospital at Ystradgynlais, north-east of Swansea. As at Mold, the facility allows patients to be treated by their own GPs and provides geriatric day care, occupational therapy, physiotherapy, X-ray, out-patients and casualty.

The hospital serves a catchment area of 16,000 people and is built on the site of an old tin plate works on the banks of the River Tawe. There are 30 consultant beds for the elderly, eight for the elderly mentally ill, 14 for local GPs' patients and a 20-bed day hospital. The architects have shown the same commitment to producing an inviting centre for care and social contact. The hospital is in a busy area of the town and the central community focus of the design allows in-patients, out-patients, visitors and staff to mingle freely.

The site is exposed and the architects have countered this by sinking the building into the slope on the north side which also serves to reduce its apparent scale. The use of large extended

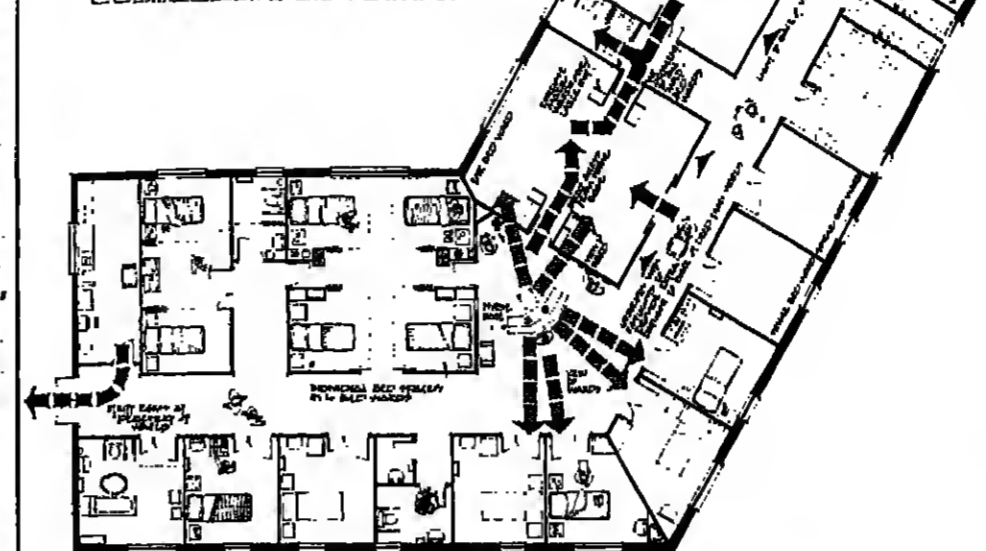
eaves, continuous sills and banded brickwork have the same effect and join the discrete units into one development. The eaves are the last of another important feature — Ystradgynlais — low energy consumption. The eastward shade in the summer brings solar gain in the winter months. The use of mounds of soil to protect against the wind, also brought energy economy. The rooms which are used by patients during the day, been placed facing south, if possible, with store rooms north.

The five single-story wings were specified in the brief case of access and mobility for the elderly. The architect joined them in a trapezoidal court faced by entrance and reception. The option of a sixth wing if a room is needed. The design allows as much natural ventilation to be used as possible.

Again in the ward area, architects tried to address greatest surveillance — especially for staff working at night — while maintaining some privacy. The accommodation made up of single, two-bed four-bed wards. In the main wards wardrobes and cupboards are used to break down the space into more personal space.

The £2.8 million centre has been up and running for more than six months and is popular with users and staff alike, and people in need of intensive nursing care the long trek to nearest district general hospital at Swansea.

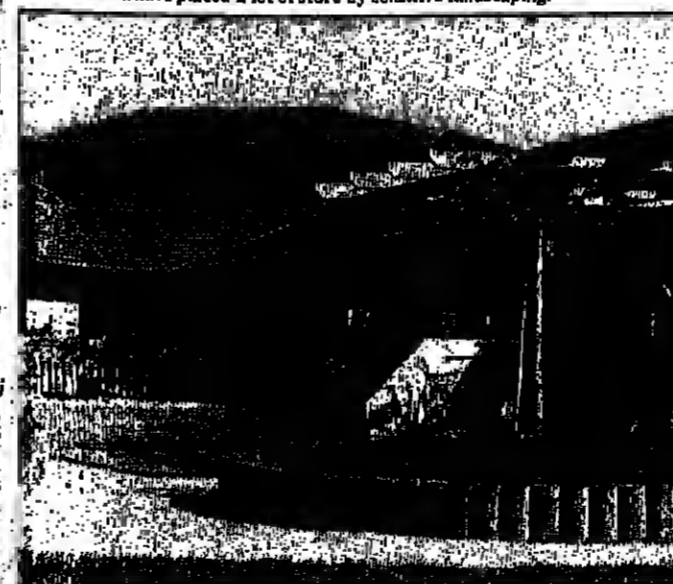
### TYPICAL WARD LAYOUT AT YSTRADGYNLAIS COMMUNITY HOSPITAL



Typical ward layout at Ystradgynlais.



The architects have placed a lot of store by sensitive landscaping.



The arrangement of the five units lets the maximum natural light and ventilation in.



Ystradgynlais remains a light, bright hospital with domestic interior features.



The large extended eaves and continuous sills link the separate units into a whole.

## Hospitals

### The costs behind the building figures

THE Government has announced four new hospital building contracts worth £75 million as part of its £3 billion commitment to construction in the health sector. A £27 million plastic surgery and major trauma unit will be built at Selly Oak Hospital in Birmingham to replace the old accident hospital; an £8 million first phase redevelopment of St Mary's Hospital in Portsmouth is to go ahead; Phase IV of the Royal Cornwall Hospital at Tresliffe will be carried out at a cost of £11 million and the Halifax General Hospital will be redeveloped at a cost of more than £29 million.

The breakdown of the Government's hospital construction programme was given as follows by the Department of Health in a recent Parliamentary answer:

"Information held centrally on the 380 schemes in the programme, which totals almost £3,000 million, shows that 54 per cent are at the planning stage, 23 per cent are being designed and 23 per cent are under construction. Information on the 88 schemes currently under construction is set out in the table:

Year due for completion	Number of schemes	Estimated total cost (building and engineering works and estimated fees and equipment) (£ million)	Hospitals or 'phases of hospitals'	Smaller projects
1986	16	70	5	11
1987	50	289	23	27
1988	21	230	15	6
1989	—	—	—	—
1990	1	23	1	—

"New hospital developments are usually accomplished in phases. Detailed information on the anticipated dates for the start of construction of schemes at the planning and design stages is not held centrally, but is estimated that about 75 per cent of these schemes will start on site by 1990 and the remainder by 1994."

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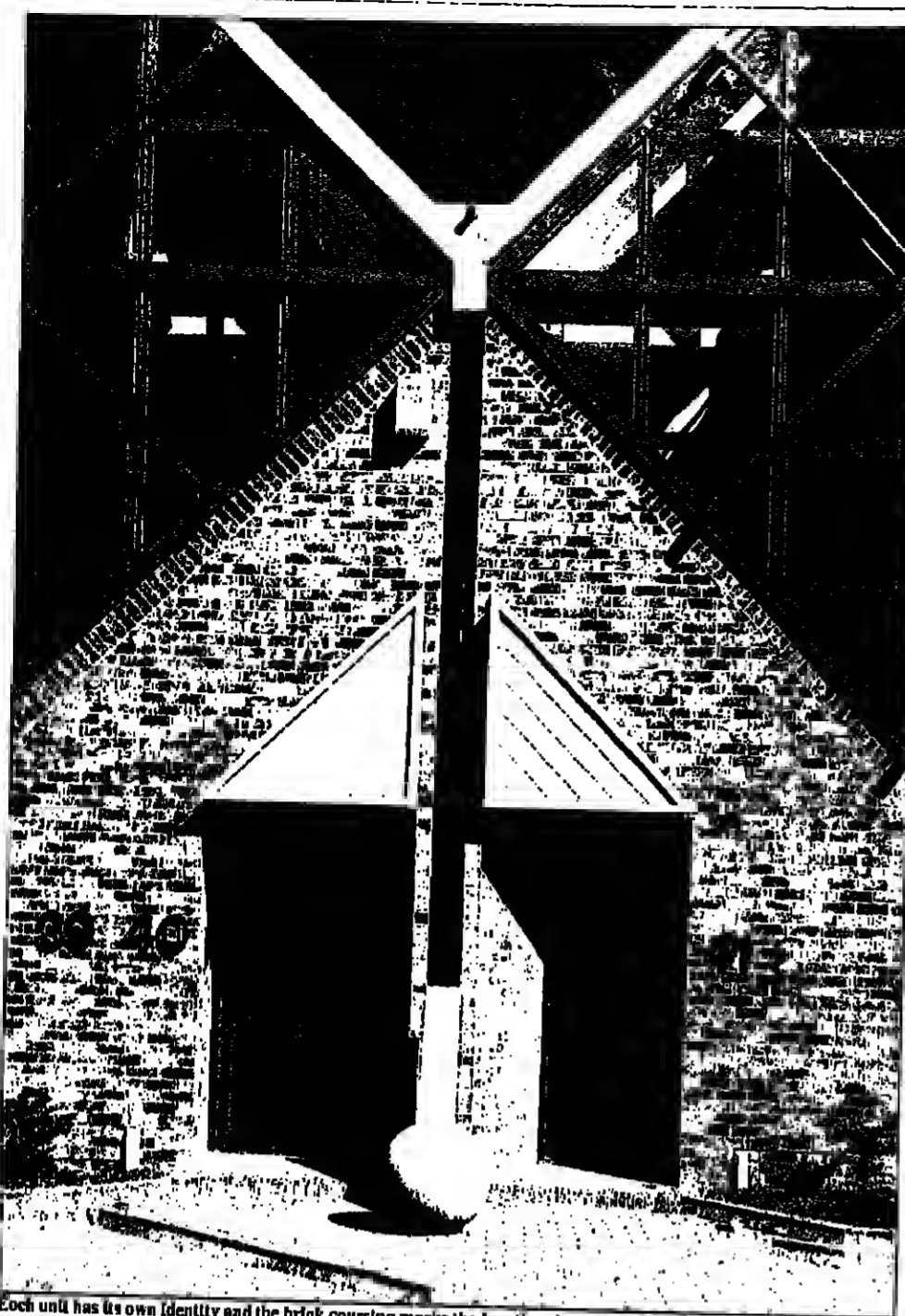
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Each unit has its own identity and the brick coursing marks the junctions between materials.

If the development on site 3C of the Docklands enterprise zone is meant to pay homage to the Olsen sheds across the red brick road — about all that was there when development started — then it must surely be deemed a failure.

But architects Hutchinson Partners Libby & Co were determined to create something which rose above that industrial anonymity, stylistically if not physically. And Skylines does hold its own against the vast shipping terminal although it does not match its height. And, with costs per square foot which have more than doubled in less than a year, the developer — John Laing Developments — must consider the project a success. "There are big grins on the faces of the developers," says architect Simon Powell, "the first units were selling in October at £90 per sq ft, now they are going for £200."

Skylines was meant to challenge. Freed with the horizontal imprisonment of the wasteland, water and opposing sheds, and with plans already afoot for the even more imposing elevated Docklands Light Railway, the designers of the small office units on site 3C had no wish to conform. The London Docklands Development Corporation's stipulation that the units should be owner/occupied to encourage stability in the area gave plenty of scope for a new approach. The concept of buying an office with a lease, in much the same way as one might buy a house, was unprecedented in this country.

Startling though the design is, it was not intended to be entirely radical, but was to combine traditional with modern materials in an unconventional compromise. The offices had to

impress the bank manager with their familiarity if the money was to be forthcoming.

Now new buildings are springing up from the Docklands mud at an astonishing rate but, as partner Max Hutchinson explains, when the suggestion of developing Site 3C — as it is still referred to by the designers — was first mooted, there was very little to inspire. "Nobody believed in the place," says Hutchinson. "It was even before the red-brick road and there was little else but mud."

But like the legendary yellow street, the red bricks running round the Isle of Dogs have brought money and vision; the bleak sight which confronted Hutchinson is just a memory. "Everything was flat," says Hutchinson. "The sheds, the water and now the railway is another horizontal emphasis. The offices had to be an exciting, dynamic shape and create a striking silhouette to counter what was around."

The architects drew the essence of the Skylines from the vestiges of the working docks — cranes, boats, sails — to produce a fitting alternative for the eye. The elevated railway also meant that the scheme be conceived from a fifth plane of vision; the roofscape had to arrest the travellers speeding by. Skylines sits in one of the most critical locations of the enterprise zone, on the corner of the turning railway.

When Hutchinson Partners Libby & Co tendered for the land and the design, finally against three other architect/developer teams, models of owner/occupied offices and funding proved difficult to find.

Hutchinson admits that the practice's first scheme was wild — very colourful, with extreme pitch, greater height and an

apparent greater density. Although the LDDC took to the scheme in principle, it requested a few modifications to tone the project down a bit. "Our relationship with the LDDC," says Hutchinson, "was difficult but productive. They wanted to come to our offices and vet us, see what else we were up to. They

were pretty tough on us and gave us a real going over."

The architects came through the scrutiny unscathed, but the developer did not fare so well. The LDDC considered that for the purposes of this development it was not operating from a sound enough financial base. Rather than reject the whole

package, the LDDC retendered the site with Hutchinson Partners Libby & Co's design.

The second approved design was drawn up with the backing of John Laing Developments. The changes were drawn up with the help of LDDC architects Charles Attwood and Ted Holmanby. Partner-in-charge Peter

Wallace recalls this as a time when their relationship with the LDDC was at its most productive. "The policy of the LDDC is much more stringent, but the creative process that goes into a planning permission seems to be very much the same. It's about dealing with architects who only tell you 'No, you can't do this or that', but add 'perhaps you

could do this instead..."

On the edge of the enterprise zone, the site is bounded by large-scale Docklands buildings, post-war four- and five-storey council flats and the red-brick road on two sides. The offices lie beside the roads to reinforce the street pattern and are arranged in four discrete blocks to create a

The project responds to the docks environment.

courtyard of a domestic scale. Pedestrian access is available at each corner of the site with one vehicle entrance to the north. There is an ambivalence about this area which allows for parking, servicing, and pedestrian and vehicle movement.

The buildings vary from single- to four-storey and the

atmosphere varies as one goes up the building. The number of four-storey units was reduced in the second design. As the units were to be sold for occupation, the architects have taken pains to ensure each is self-contained and has its own identity. Although there are only two generic types, no two units are

Although each unit is separate, themes connect the whole scheme.

the same, and each has its own roof shape and visual break from its neighbours to express its individuality and generate a pride of ownership. Some are monopitch, some are duopitch. Each front door is marked by its own "porch", concrete canonball and "cheese sandwich". The bank manager everyone

wishes to woo can see precisely where his money is going.

"The funding is coming from 37 different sources," says Wallace, "we thought we should talk an architectural language people are familiar with."

The units are not disjointed. A uniformity of image unites them. Brick coursing runs beneath the junctions of different materials — brick to glazing, glazing to cladding — to tie them together in one form.

The units, which range from 60sq m to 418sq m gross, have been taken up by a variety of professionals — chartered surveyors, interior designers and solicitors. There is something for everyone: the privacy of conventional offices, which could be found in any Georgian conversion, on the ground floor, larger open-plan areas above and mezzanines in more than half the units.

The changes are subtly reflected within. One's focus grows from the quiet domesticity of the courtyard at the ground floor to views of the rekindled docks beyond from the galleries above.

The brickwork gives way to red aluminium-framed windows, clustered and stepped, with hubs and spokes to provide windbraking, and cladding beyond.

A portfolio of local authority housing projects to inject security and colour ensured the practice felt confident about the combination of bright steelwork and bricks.

Hutchinson is relieved that the materials are now readily available. "We knew the combination worked and we were dedicated to it. Colour is very important to us."

The melange of materials is not, insists Wallace, something that one is likely to see springing

up all over the place. What is acceptable to an enterprise zone is not necessarily welcomed by planning committees elsewhere. "The design," says Wallace, "is a one-off solution to a one-off problem. All industrial buildings have a brick plinth, we just took that a bit further."

The junctions between materials did bring their own set of problems; each had to be calculated individually since the angles were never the same twice and flushings had to be added to the gutters to refine the unsightly industrial finish. But with demand which outstripped supply as soon as the first units went on the market, the pressure was on to complete and the phased hand-over was cut back. The number of units was reduced from 41 as smaller units were merged to cope with demand for larger offices.

The architects would be the first to admit that the money — £3.8 million — was concentrated on the exterior architecture and the interiors were given only standard finishes, to allow occupiers to stamp their own identities.

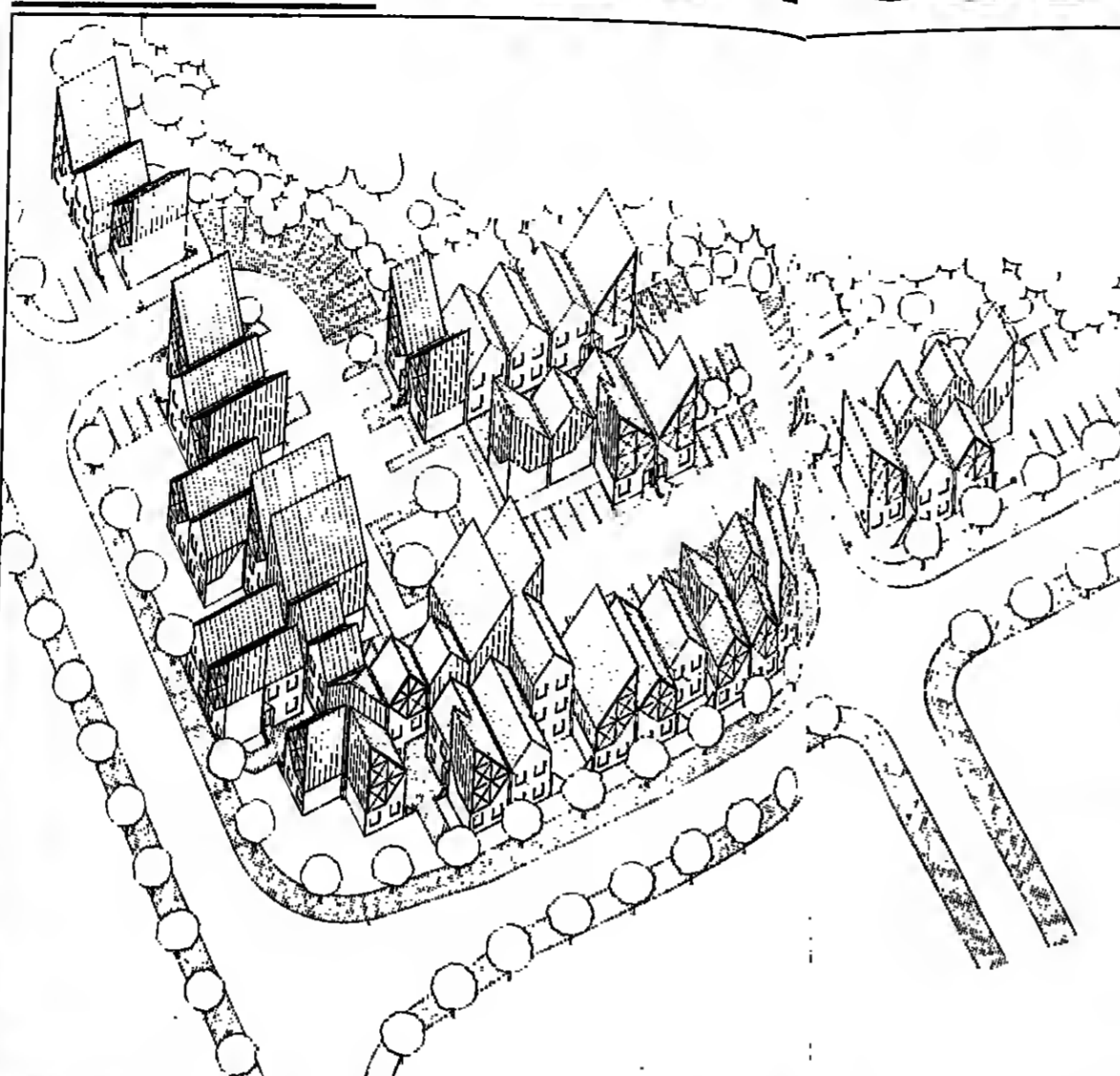
Most purchasers have adhered to the principle of buying and occupying, although one has been tempted by flourishing rentals to relet his five units. Hutchinson and company should never have worried about the site.

All the offices were sold within eight months and John Laing Developments is certainly not worrying now.

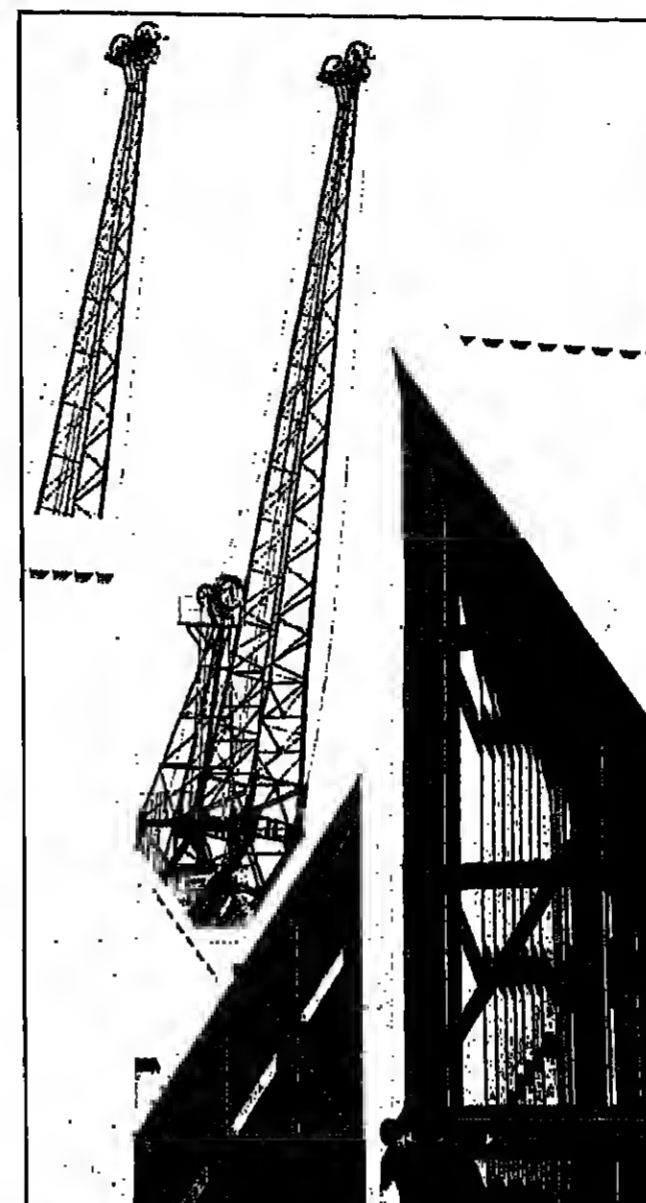
Architects: Hutchinson Partners Libby & Co. Clients: John Laing Developments. Quantity surveyors: David Bedford & Evers. Structural engineers: W A Fothergill & Partners. Mechanical and electrical engineers: ACDP (Integrated Building Services).

# SHARP CONTRAST

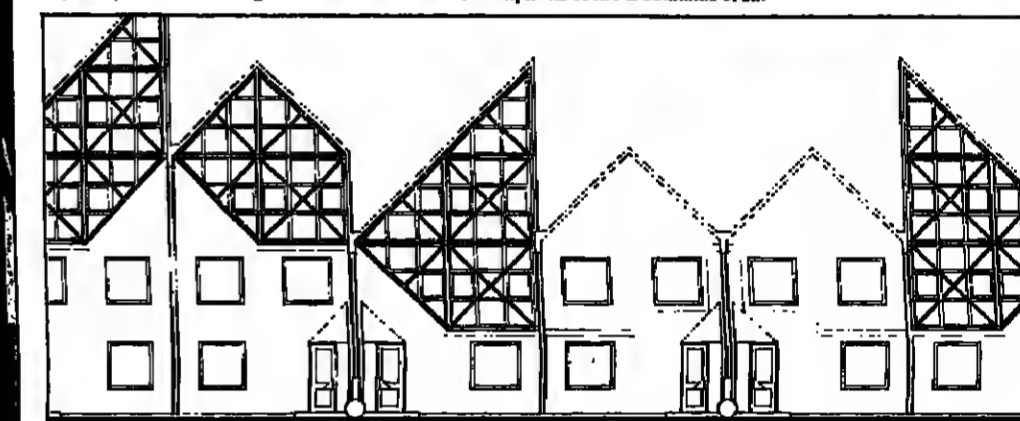
Fiona Gorman reports on a startling development of office units in the London Docklands enterprise zone on the Isle of Dogs.



Axonomic of site 3C.



Skylines provides a striking contrast to the horizontal emphasis of the Docklands area.



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# Sculpture

## GARDEN FEATS

Tim Ostler on the architectural sculptures of Raf Fulcher.

RAF Fulcher's sculptures possess that sort of eccentric spirit so often described by journalists as "very English". Few contemporary sculptors demonstrate a more explicitly architectural quality in their work.

His installation "Garden Front", enclosing the rear courtyard of Jesmond station, Newcastle, as part of the "Art in the Metro" scheme, possesses more than a hint of the jester's hat about it; it produces much the same effect on this po-faced sub-Miesian station, figuratively, as a poke in the stomach might have had on Pope Innocent X.

Despite circumstantial involvement with architects at Jesmond, and a more direct collaboration with landscape architects at Liverpool Garden Festival Arena, Fulcher's is a spirit as yet oddly unexploited by the sort of classically-inclined architects in whom, automatically, we might presume an interest. Instead, his recent work has been confined to garden settings, such as the Chelsea Flower Show.

Before I met him, I'd expected something of an antiquary... aloof, patrician — the artist equivalent of Quinlan Terry, perhaps. Fulcher is in fact a small, gnome-like man, with a tendency to wear a sidelong, irreverent grin. It is his wife Elizabeth Tate — an artist specialising in exquisite equestrian sculptures — who possesses the aristocratic manner. They live, improbably, in a cottage *encl* near Gateshead, overlooking a wide industrial landscape (but just within sight of the sea).

Fulcher arrived at his interest in the picturesque by a rather

roundabout route. Graduating in 1968 from Newcastle University's Department of Fine Art, his first preoccupation was typical of the time: "What was I doing in the 60s dear?" he asks his wife. "I think you were making machines" she replies. But it was the poetic rather than the material aspects of technology in which his interest lay. Intrigued by the ideas behind it, he took part in a reconstruction of Vladimir Tatlin's "Flying Machine", picking up, he says, on Tatlin's perception that "people can fly in aeroplanes, but they haven't actually learned the feeling of flying".

Art about machines has become inextricably associated with Tinguely and his "useless machines". But Fulcher feels that these machines had more to do with the aggression of

technology. What Fulcher was contemplating was, instead, "a quiet sort of engineering". His machines were not intended as self-contained art objects, but as demonstrations of philosophical principles — or attitudes of mind. "The whole wobbly direction in which all that was leading," he says, in his curious turn of phrase, "was towards a vision of a new sociability brought on by non-antagonistic principles". It was the opposite of what he characterises as "percussive" machines, such as cars.

But before long technology lost its fascination for Fulcher. "What we were making then wasn't art, and it wasn't anything else. It was just a blind alley". Disillusioned, he stopped working for two or three years. His sculpture, when it returned, came as a direct reaction to his previous work and was the by-product of activities such as gathering, harvesting and regenerating. It usually took the form of primitive objects made out of dead materials and plant detritus.

Fulcher's work began to suggest connotations inherent in Rousseau's "Noble Savage". Primitivism became juxtaposed with the aristocracy. In a gallery installation appropriately called "County Life", ladies on horses were juxtaposed with vegetation mounted on frames mounted off the floor, and fragments of Chinese pottery.

Fulcher became interested in a more ordered form of nature, and thus to the idea of the garden — to a more traditionally English approach to the picturesque. But at the same time this was combined with an ideal Platonic vision of posts and lintels, of the primitive hut — "Adam's House in Paradise".

Between these two approaches to the natural world Fulcher feels there is a "very wobbly" connection (Fulcher's usage of the word *wobbly* denotes an idea which is vague, half-baked, not fully thought-through; but perhaps for that reason still open-ended in its implications). The result is perhaps whimsical, but the artist, for his part, prefers the term "lightness", on the principle that some of the strongest ways to say things are slightly off the cuff.

Fulcher's interest in historical reconstruction, dating from his work on Tatlin, and his new interest in the picturesque, resulted in the V&A giving him a job of constructing replicas for their exhibition of Humphrey Repton's work.

Raf Fulcher and Elizabeth Tate are two genuine architectural *notifs*. The clash between the one's quirky Batty Langley approach to classicism is balanced by the other's more aristocratic manner. There are no architects of this century of whom they are particularly

aware or admiring.

They are both, however, enthusiastic about Vanbrugh, particularly his work at Castle Howard and Seaton Delaval. Fulcher becomes quite animated when talking about the "Because Seaton Delaval burnt out the way it is, almost feel as though you're looking at a Vanbrugh drawing, you're looking at the reality of the whole thing... you're much more aware of the basic concept." A similar fascination produced by Blenheim Palace, bombastic outhouses, who baubles, ties, swags and all possess the rhythm of ballroom juggled exuberantly in the air.

It was as part of Northern Arts' enterprising scheme "Art in the Metro" that Fulcher was asked to carry out what proved to be his most architectural work yet, at Jesmond Metro station in Newcastle. Here a quaint arch form in Millstone grit forms a counterpoint between copper-clad, filled obelisks planted in slender boxes like exquisite topiary. The composition is set between wings at the back of a sub-Miesian glass box, through which commuters can see a large patch of closely-mown meadow and gins.

In its context, the sculpture provides the architectural *decor* for which the architect

seem to have abdicated all responsibility (according to Fulcher, they showed little interest in his proposals). He cites no particular prototype for this work, except to a certain extent 18th century Dutch china painting.

We might be forgiven a yawn at the mention of public sculpture; much of it at present is unloved and uncared for anyway. For Fulcher, however, it is intentional that "Garden Front" should achieve a derelict, ruined quality. What he regrets is that the minimal budget of £1,750 prevented him from using materials likely to weather gracefully enough.

For instance, he was unable to use thick, vandal-resistant copper. Instead he used 22g metal on rot-proof plywood backing. The decorative finials are repoussé copper filled with grout, but Fulcher has learned the hard way precisely what diameter the steel bars that connect them to the obelisks should have been. At the time of my visit, local vandals had already set them at a drunken angle.

"Garden Front" hasn't attracted the kind of hostile press reaction so often suffered by public sculpture. In fact, it's hardly attracted any attention at all. That so many commuters pass by without a second glance could be because, like one man



Fulcher's "Unacceptable Objects".



Overall view of the setting at Chelsea.

closed the central vista constructed out of rough timber, broken glass, and flint set in cement *fondu* blocks, and with Ledouxish dribbles in lead. Side and cross axes were closed by screens

in Vauxhall plate-glass silvered with mercury (to give a mirror effect without the reflection). Fulcher feels this to be a valuable way of closing a vista in an enclosed space. The sheets of

glass were edged with lead sheet cut in a zig-zag pattern. Timber, wherever used, was stained in one of two shades of green, giving it an algae-like patina.

Tate's water piece at the crossing of the axes was a cross between a pool, a sundial, and something by Jan Hamilton Finlay. A circle of stone was inscribed with a flame/wave motif, and the words "quick", "silver", "waves" and "flames".

It could be rotated manually by means of a small silvered glass ball on a pole: "It's not really a pool, it's a sculpture", says Tate, "a stone puddle".

The planting used was kept deliberately simple in order to demonstrate the ease with which this sort of garden can be achieved in an ordinary urban garden. English yew hedges, encased in trellis, framed the plan, with yew and box topiary specimens in cone, ball and pyramid shapes dotted around the composition (the plants they used, I learned, were specially bred for exhibition and frequent transplantation. Like prize poodles, they are kept clipped and maintained, with restricted root balls). Foliage, however,

was cleverly selected to match precisely the two shades of wood stain used.

In their comments, some visitors focused on the gloomy (Tate prefers the word "contemplative") atmosphere. "It's like a mausoleum, it's Mexican... a garden built by weirdos for weirdos".

But the popular reaction to the display was markedly favourable. This attitude was more than counterbalanced by visitors delighted to see "this sort of thing at Chelsea at last". American visitors, for some reason, seemed particularly sympathetic. The garden won one of the Silver Gilt awards.

It must now be fairly widely established that one of the main barriers to collaboration between artists and architects is a lack of common preoccupations. Art and architecture remain divided by a no-man's land. Fulcher, along with his fellow artists Tate, Carter and Boisset, retains an artist's sensitivity to materials. But his work at Newcastle, Liverpool and Chelsea demonstrates that he has already made it more than half way across the barbed wire.

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**WARD BUILDING COMPONENTS**

THE, once universal dominance of British capitalism has shrunk in the late 20th century to just one sector: so-called "financial services" — banking, investment, insurance — based in the City of London and some ex-urban outposts.

Their "invisible exports" are one of the only two business sectors (the other is North Sea oil) that consistently return a positive foreign trade balance, and together they have underpinned the stability of the present Conservative Government.

It is no accident that this sector has been the commissioner of the two most significant British architectural projects of this decade: the headquarters of the Hongkong & Shanghai Bank from Foster Associates, and the new Lloyd's insurance market from Richard Rogers.

What may be more difficult to explain is why these commissioners have chosen to represent themselves in forms derived from the industrial manufacturing culture which has so conspicuously failed to flourish lately in these islands, and whose decline some have attributed precisely to the indifference towards it of City investment institutions.

Actually the decline of manufacturing and the growth of "services" in the British economy may be said to find in Lloyd's new building an at least metaphorical representation. For the new building, quite apart from looking to many eyes like an oil rig or refinery, is itself about nothing if not "servicing". Its design may be said to represent the triumph of servicing over material substance, process over finality of form, behaviour over object, performance over style. Moreover, we might go further and characterise this building for an insurance institution as itself an elaborate and comprehensive piece of architectural insurance. However, I say "represent"

deliberately, for that is exactly what this building is — a representation, not the actuality, of that mechanical triumph: a rhetorical image derived from the exaggerated and Baroque display of selected mechanical and structural features.

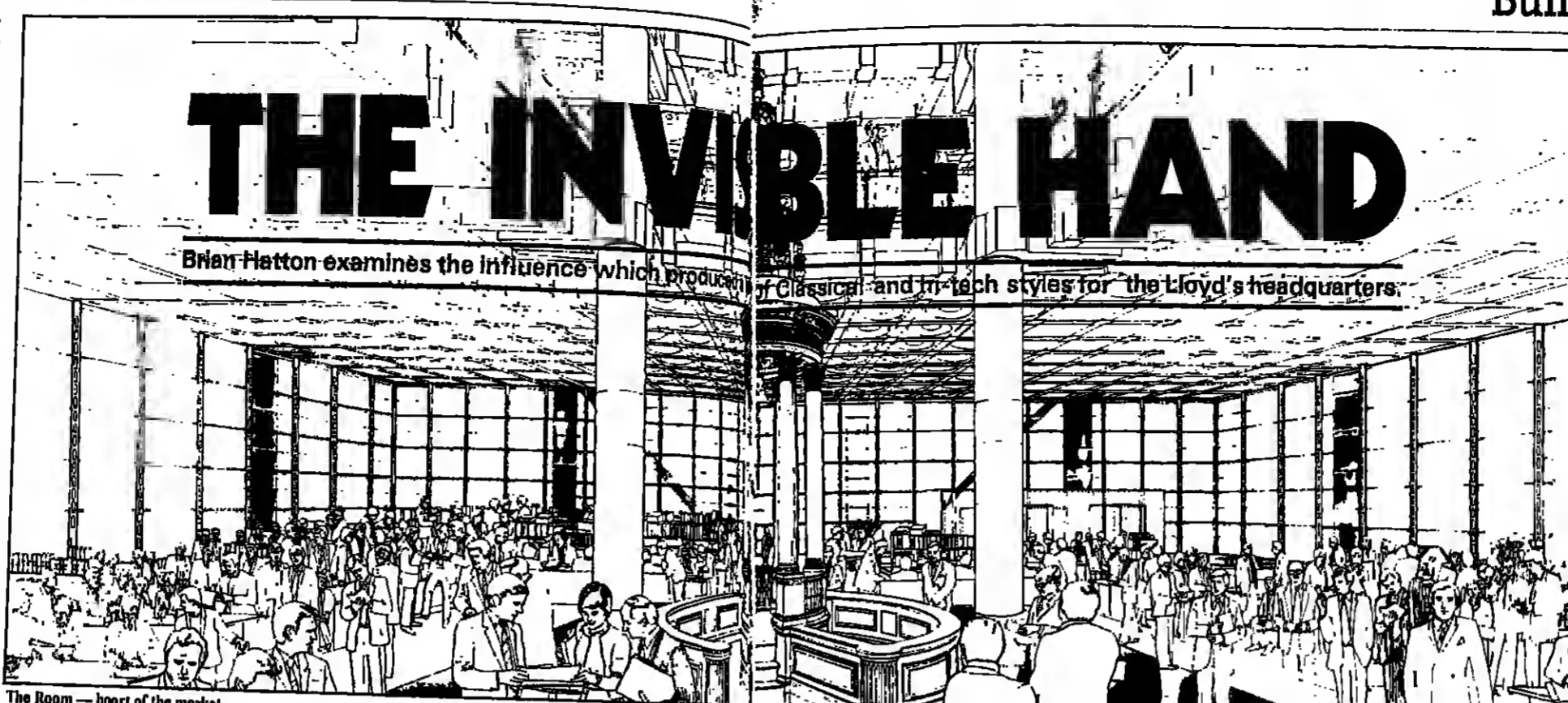
Yet the servicing and "insurance" given to its occupants is very real, and a true response to the brief. Lloyd's is not a corporate headquarters but a phenomenally successful private marketplace that has outgrown its housing three times in this century. Taking its name from the coffee shop in which it began in the late 17th century, Lloyd's moved in the 19th century to Cockrell's Royal Exchange and then in 1928 to a new building on the present site. In 1958 it relocated to larger premises next door, but by the 1970s it was again requiring more space for its transactions, which have always taken place within a single floor known as the "Room". Also impinging was the pressure of new information technology, whose electronic facilities could no longer be incorporated piecemeal and empirically.

The directors now looked for a definitive solution to their accommodation problem in order to ensure that they would never again outgrow their quarters or be outgrown by their technology. This prospectus of predictable growth and prudent change on a single site was the first datum in the production of the new building. The second was the character of Lloyd's operations. Lloyd's is a shop, but it is a closed shop in which both sellers and buyers are members of an exclusive and traditional club based on face-to-face dealing where "my word is my bond". It might be described as a department store of insurance services in which brokers shop around on behalf of clients in the world outside to buy risk cover from syndicates of underwriters, who form the essential membership of Lloyd's. Lloyd's confederal or-

ganisation is cellular, like many advanced architectural structures: if one syndicate fails, the rest of the structure is unaffected.

Given these requirements on the restricted site of the 1928 building in the City's medieval street-plan (an archaeological dig is underway next door), certain features of the new building were fairly predictable: a great hall, height, perhaps even the atrium form. Given also the current urbanist climate, its engagement with the life of the street, public invitation, and expressive articulation could also have been foreseen. But whether any of the rest of the appearance of this design could have been deduced as a strict outcome of necessity is, to say the least, moot.

Yet the ideology of the kind of technological rationalism found in this building gains much of its appeal, indeed charisma, on claims to find by means of fine analysis of functional criteria into technical specification, the optimal solutions to defined problems. Whether this strategy can be extended to architecture from the fields of instrumentation and advanced engineering



# THE INVISIBLE HAND

Brian Hatton examines the influence which production of Classical and hi-tech styles for the Lloyd's headquarters.

The Room — heart of the market.

## CIVIC SHIELD UPDATE

### SPECIAL FEATURE

TRYDAN DE CYMRU  
SOUTH WALES ELECTRICITY

### Civic Shield gets the thumbs up from Wales and West.

Of the 3,000 or so dwellings owned by Wales and West Housing Association, the 36 flats and 10 houses at Ynysybwl, near Pontypridd, were a cause for concern.

The severe weather conditions in this Welsh valley had made the mould and condensation problems even worse.

So it was these 46 dwellings which Wales and West chose as their pilot scheme for adopting the Electricity Board's Civic Shield Award.

As is usual with this scheme, the work involved minimum fuss and disturbance so it wasn't necessary for the tenants to be moved out.

In just two months, from January to March 1983, all 46 homes had been upgraded to the Electricity Board's Civic Shield Award standards.

By converting the homes to the Economy 7 tariff, improving the insulation, installing new style heaters and converting the water



heating to Economy 7, they became warm and comfortable with affordable running costs — plus very happy tenants and an ecstatic housing manager into the bargain.

Consequently, Wales and West actually found themselves faced with a waiting list for homes which had previously been as hard to let as they were to heat!

Their pleasure at the cost-effectiveness of the whole package — from installation right through

to operation — speaks for itself. By 1985, all Wales and West's 800 dwellings in the South Wales Electricity Board area had been upgraded in accordance with DEN 3 guidelines and had received the Civic Shield Award.

In fact, they have now completed the upgrading of all their electrically heated homes.

As usual, the homes weren't the only things we converted!

### Now these tenants are the envy of all their friends and relations.

After hearing about Civic Shield's success from the South Wales District Energy Marketing Engineer, Monmouth District Council decided to install an Economy 7 heating package in one of their biggest problem areas — pre-fabricated homes with no proper heating system at all.

The homes were freezing and, like most buildings of this type, there was the added problem in that the thin concrete external walls required extensive repair.

The Civic Shield Award Scheme, with its comprehensive insulation package and Economy 7 heating and hot water, was the ideal solution.

The lofts were insulated and draught-proofing was fitted round doors and windows. And lining the inner surface of the walls with insulation board not only overcame the problem of heat loss, it also covered up the repairs.

This insulation, combined with the introduction of the Economy 7 tariff, new-style storage heaters and the specially insulated Economy 7 hot water cylinders, has now made these homes and their tenants beautifully warm and comfortable.

In fact, as this happy couple tell us, "All our friends and relations are very envious. Now they come round to us for a warm!"

Monmouth District Council are so pleased, they'll consider the Civic Shield solution on all their pre-fabricated homes in future. To date, they have implemented it in over 300 homes, pre-fabricated and

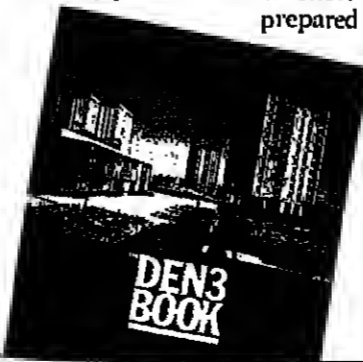


otherwise, at 32 different locations — and there are more to come.

### Essential reading for everyone in public sector housing.

You can find out much more about the DEN 3 package from our brand new, 32 page colour publication, shown below.

It's our "How to do it" adaptation of the original Domestic Energy Notices (3) — DEN 3 for short — prepared in

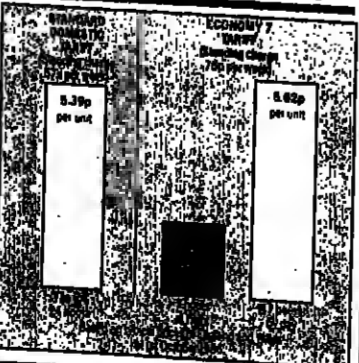


Economy 7 night time electricity is less than half price compared with today's standard domestic rate. So it actually saves money on heating and water heating.

The adjacent diagram shows you how Economy 7 works. Whereas the standard domestic tariff has a single rate for units used, the Economy 7 tariff has two rates — one for day, another for seven hours at night.

Tenants are able to get cheap heating because the stylish new slimline storage heaters take in heat overnight during the cheap

### Less than half price electricity from Economy 7.



For more information on DEN 3 and Civic Shield, call your Electricity Board contact below:  
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where it was pioneered depends on two things: first, the possibility of translating an imprecise brief into a definitive set of specifications, and secondly, the possibility of refining analysis to the point where plastic design amounts to no more than an objective deduction.

In fact, no architectural undertaking, and indeed no design task in a world where representation matters — that is to say, the human, social, and cultural world — can ever conform to these demands.

It is worth restating these obvious points because of the need to put some critical distance between oneself and the massively persuasive technical discourse (I refrain from saying hype) in which this building is swaddled. "We have the answer, we have the technology," "Well, advanced technology may or may not be the answer, but what is the question? It is a matter of returning to premises; for as soon as one suspends the question of critical premises and listens only to the chain of particular explanations given for the appearance, shape, and disposition of particular components, one is likely to be

blinded by an array of objects and parts that are indeed brilliant solutions to problems, but often problems arising from assumptions which are unadmitted, unexamined, ideological, and perhaps unconscious.

The failure to negotiate, representationally, with the unconscious, the failure to admit certain obsessions and conflicts between the ideologies of architecture and of business, leads to an irresolution and instability of image which is rife in the exterior of the new building, but most tellingly revealed high up out of public sight in the directors' rooms and boardroom. Here, the intimate surroundings of the directorate have at their heart a reinstatement of the entire Adam boardroom (originally in Brnwood House) from the old building, together with period furniture.

This preservation, like a beautiful casket in a hi-tech frame, might be accounted simply a sentimental attachment to an institutional heirloom, the private equivalent to the public preservation of Sir Edwin Cooper's 1928 Classical entrance at street level. Moreover, Adam's domestication and merchandising of Roman archeology by means of interchangeable moulds (they are still available from a London interiors firm) was an early antecedent of the techniques of prefabrication and replacement which predicated the new Lloyd's building. Yet the Adam room is still used, for preference, by the board, and the rest of the floor on which it stands has been given over to the kitchen embellishments — gilt Doric columns and quilted doors — of the French interior decorator Jacques Granges.

The retention of these Classical pretensions by Lloyd's in the midst of their new environment cannot be simply dismissed as marginal or merely a "failure of nerve" on the commissioners' part. It represents an implicit assumption that although work may be done and money made in the surroundings of servicing-

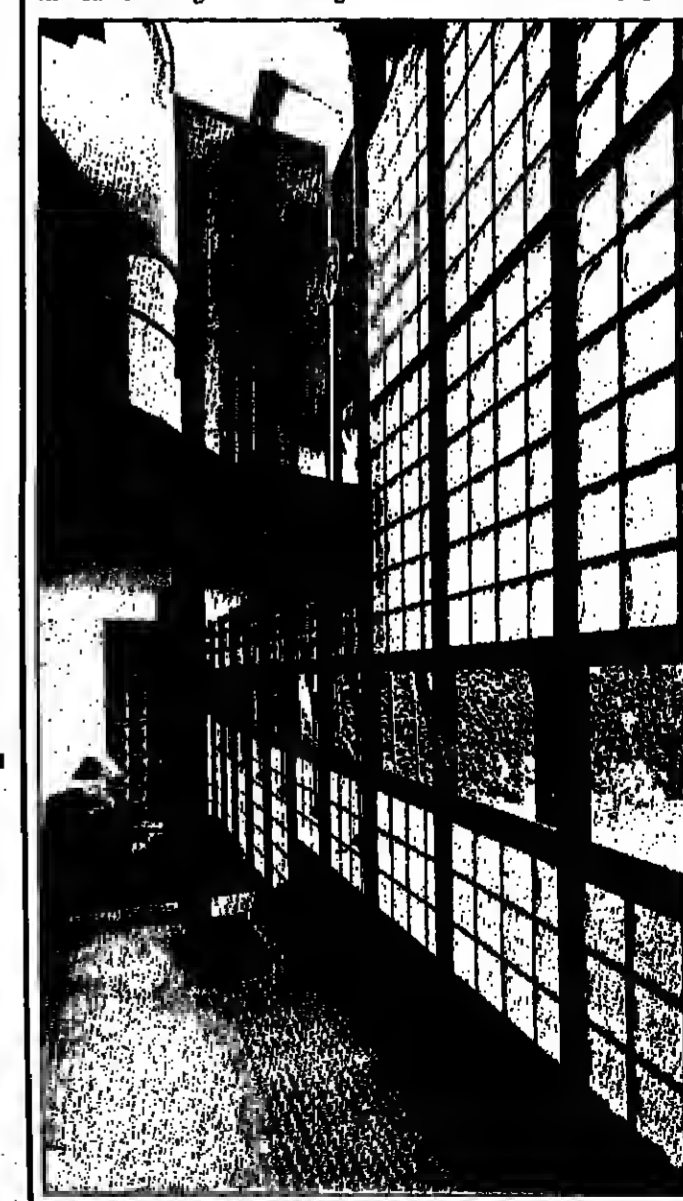
modernism, its fruits and the good life are still ideally consumed in the traditional forms of aristocratic Classicism, feudalism, and handicrafts. To the extent that intimacy and luxury are still perceived in these terms, then the kitsch and Classical trappings of the executive rooms constitutes a subversive criticism of the rest of the building below them.

It is claimed that the kind of architecture found in the new Lloyd's is precisely about honesty, frankness, visibility, and control. But these categories are made to apply here only to mechanical matters. In fact, there are many things in this building which are not admitted, not visible, which are repressed, and ultimately indeed in some places out of control. If the executive heart of the building finally pretends to a fake Classicism (and in saying this I am referring to the whole building that Lloyd's commissioned for themselves, not the nine tenths of it designed by the Rogers partnership), its public exterior breaks out into a blustering, Broque functionalism barely this side of mechanolatry in its psychological effect.

For the public it will look like a machine, exciting by its movement, and dissolving at night, as Mendelsohn was the first to grasp and exploit, into pure optical energy, like Lewis Carroll's Cheshire Cat that disappears into air, leaving behind only its grin. But it will also at other times and other levels, perhaps barely sensed, and disarming and disturbing, resemble something other. I myself find it hard, contemplating its southern aspect, to put out of my mind the hallucinatory image of the machine-become-Moloch in Lang's *Metropolis*. When I say "out of control" I am speaking of architecture and its domain of representations, as in the towers containing servicing plant, that have clearly got much bigger than anticipated in early projections. In technical terms, I do

continued page 36

### CASE HISTORY: MONMOUTH



Chereau's Molson du Verre — inspiration for a glazed wall of light.

I'd like more information. Please send me my copy of the new DEN 3 Book plus a copy of the Civic Shield brochure.

Name \_\_\_\_\_

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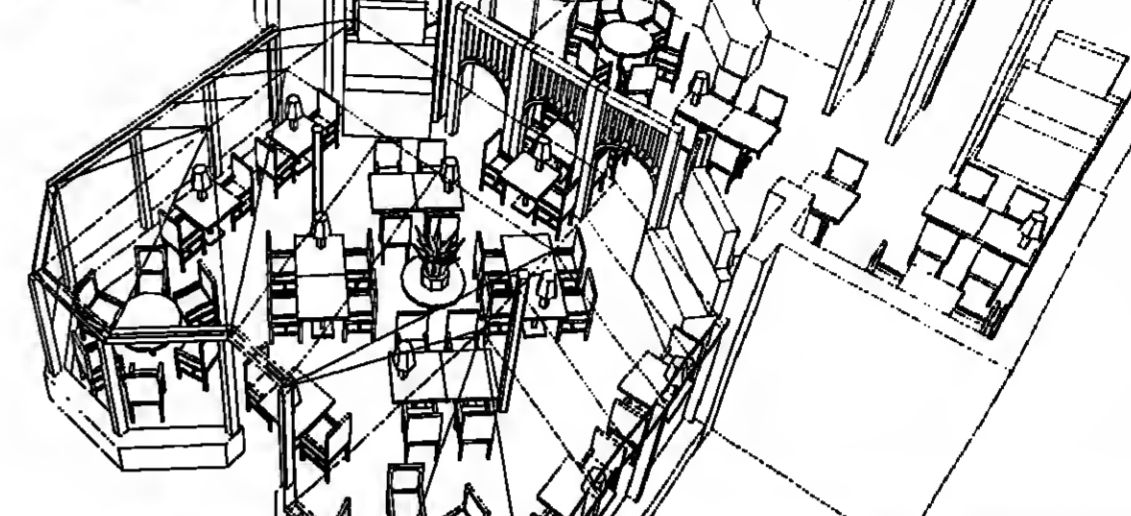
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## Survey

# COMPUTERS

In a special 14-page report, Richard Twinch assesses current computer-aided design trends, and how architects are getting to grips with them.



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## Getting it together

PERHAPS the major pre-occupation of many people already using CAD, as well as those still drawing up courage to enter the field, is how to ensure compatibility with other systems used by other professionals.

There are those who claim the only way to achieve stability is by sticking to one operating system and one hardware standard. In this there are at least two major schools of thought:

- IBM compatibility is all.
- UNIX is the operating system to use, linked to hardware that complies with certain international standards.

There are strong reasons to support these views of compatibility, not least vested interest, but they do suffer from historical and practical drawbacks.

Hardware is not compatible to fix down to a standard, since technology is moving so fast. Any standard configuration is outmoded almost as soon as it is standardised (or before) by the arrival of a new chip or the development of a new process to make components faster and cheaper. Many early CAD systems relied heavily on Tektronix compatibility as standard, a compatibility that vanished overnight when the hardware was discontinued, leaving many high end users stranded. It is uncertain whether IBM will continue to propound its own PC standardisation, which has led to erosion of its profit margins.

Operating systems are largely for the convenience of the programmer, UNIX is certainly a very powerful one, MS DOS (as is IBM PC) most widely used. Others (and variants of others) will doubtless follow. Many now recognise that it is the user interface (ie how the user interacts with the software through a keyboard/mouse etc) that is more important to the user than the operating system itself, whose inner workings are best hidden if they are not to confuse. The system that has done most to revolutionise this way of thinking is the Apple Macintosh, which is a delight to use, and which has an operating system all of its own.

Beyond the dichotomy of

hardware and operating systems there are those who view compatibility of data interchanges as being the essential feature of current and future CAD systems, a view which I share, and this article describes how several different organisations are addressing this problem.

### D'Arcy Race

To understand D'Arcy Race Limited's approach to translators it is helpful to give some background information on the organisation, which was set up seven years ago by Dick D'Arcy and Steve Race, both architects who had worked on developing the use of CAD in hospital design for the Oxfordshire Regional Health Authority.

The authority provided the major impetus to the development of BDS (Building Design System), through to GDS (General Drafting System), by the then Applied Research of Cambridge (ARC), which has since been taken over by McDonnell Douglas corporation of America (a fact much mourned by Race).

D'Arcy Race was established initially as a drafting bureau. The co-directors were aware that they had the requisite knowledge of CAD which could provide an entry into large-scale architectural design work. Naturally enough they turned to ARC to provide the CAD system which was implemented on a then state-of-the-art PRIME computer.

D'Arcy Race have been successful in surviving and establishing an international reputation for themselves as a drafting bureau and as consultants, so much so that between Christmas and April this year, the Fitzroy Robinson Partnership bought them up in toto, and moved them into their offices in Portland Place. This seems to be beneficial to all parties, taking place overnight in business terms (three months).

The Fitzroy Robinson Partnership have acquired the technological expertise they needed, D'Arcy Race has gone on to research in America, and Race continues as managing director. D'Arcy Race Ltd is still continuing to practice as an independent page 40

## One way to build a reputation

Today, the designer of the Leaning Tower of Pisa would probably end up in prison rather than in the history books. And all for the sake of a breakdown in communications between architect and engineer.

Thankfully today, technology is available to prevent this happening, whilst simultaneously saving time and increasing profitability. It's a CAD system called GDS.

GDS builds the links between different disciplines - assisting in the preparation of drawings with its new 3-D modelling and comprehensive draughting capabilities. GDS drawings then become the template for other members of the design team, and form the database for maintenance engineers and facility managers.

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## Computers

## Computers

from page 39  
pendent drafting bureau (re-  
maining as a company separate  
from the Fitzroy Robinson Part-  
nership), employing a mix of  
architects and technicians to  
supply a variety of services:  
simple drafting, software de-  
velopment, design and CAD  
consultancy.

One feature that attracted  
Fitzroy Robinson to D'Arcy  
Race was their involvement with  
software development, in par-  
ticular direct translators from  
one CAD system to another, eg,  
GDS to Intergraph, GDS to  
Autocad etc. The need arose  
initially from D'Arcy Race's  
own bureau work, and subse-  
quently from requests through  
the "grapevine".

Race is a pragmatist by nature  
and feels that in translation  
one should use what is "neces-  
sary, useful and available" for  
any one job, rather than be  
dogmatic about operating sys-  
tems, protocols, hardware etc.  
He is not complimentary about  
the efforts of other bodies  
(including the RIBA), to de-  
velop translators from a firm  
called Connexa whose sole business  
is to supply cables between  
micros and micros and peri-  
pherals (printers etc).

D'Arcy Race employ a spe-

cialist programmer, Adam  
Gawne-Cain, who is linked into  
the PRIME through an Olivetti  
M24.

As with the bureau service,  
the translator software works at  
several levels, depending on  
whether it is just the question of  
transfer of the "picture" for  
viewing and printing, or what-  
ever the original data is to be  
modified on the secondary  
system. The latter naturally  
involves much more work and  
requires decisions being made  
on the transfer of say a 2-D  
"object" in GDS into a series of  
"layers" as in Autocad. Having  
prepared translators, D'Arcy  
Race is proposing to sell them to  
other clients. One piece of  
software being specially de-  
veloped is digital information  
from GDS to Ordnance Survey  
maps, and other formats.

This is valuable and useful  
work, and undoubtedly is a  
growth area in software and  
indeed hardware development,  
as proved during the writing of  
this article by the arrival of a 14-  
page brochure from a firm called  
Connexa whose sole business  
is to supply cables between  
micros and micros and peri-  
pherals (printers etc).

## BSRIA

Such software is, however, very  
much one-off, and as pointed  
out by the BSRIA (Building  
Services Research & Infor-  
mation Association) in their  
recent booklet *Data Exchange  
Between Computer Systems in  
the Construction Industry* by  
Jeff Wix and Colin McLelland,  
the benefits of such translators  
are that they are very fast, but  
that the disadvantages are:

"(a) two translators are needed  
for exchange between every  
system;  
(b) every time a system is  
updated, the translators software  
must be updated with it;  
(c) archiving of data from  
previous software revisions or  
previous hardware revisions  
may be a problem."

Consequently, they surmise  
that it will only be practical to  
maintain direct translators be-  
tween the major half-dozen  
systems (this alone is 30 transla-  
tors). For other systems they are  
promoting the use of an inter-  
national standard — a neutral  
file structure that will act as an  
intermediary between systems,  
but which will allow far greater  
flexibility than it will only be  
necessary for each piece of  
software to read and write to the  
neutral files. This will take  
longer than direct links since  
two processes are involved  
instead of one, but the extra  
flexibility is thought to be of far  
greater importance and give  
longer term security to data.

Such ideas are by no means  
new, but their implementation is  
slow and learning how to use  
them is taking time. We forget  
just how new CAD still is in  
design terms and how many  
new concepts are still being  
invented. The booklet charts the  
history of development of the  
major international standards  
and concludes that the system  
most likely to succeed is known  
at present as IGES (Initial  
Graphics Exchange Specifica-  
tion). This in turn is due to  
evolve into PDES (Product  
Data Exchange Specification)  
and eventually all become  
known as STEP.

This sounds confusing and  
goes a long way to explain why  
D'Arcy Race have opted for the  
direct approach, but it is un-  
doubtedly necessary and the  
good news is that it is all tending  
to work towards just one  
international standard. How  
that standard will then be  
implemented is another matter.  
At present, just because software

is so-called IGES compatible  
doesn't mean it will automati-  
cally link with another IGES  
compatible product, since IGES  
itself has many subsets of data.  
What is required is a body to  
decide which subset applies to  
what data (ie what is appro-  
priate for specification notes,  
what to graphical symbols etc),  
and this is now being done by a  
new CAD/CAM data exchange  
technical centre based at the  
University of Leeds.

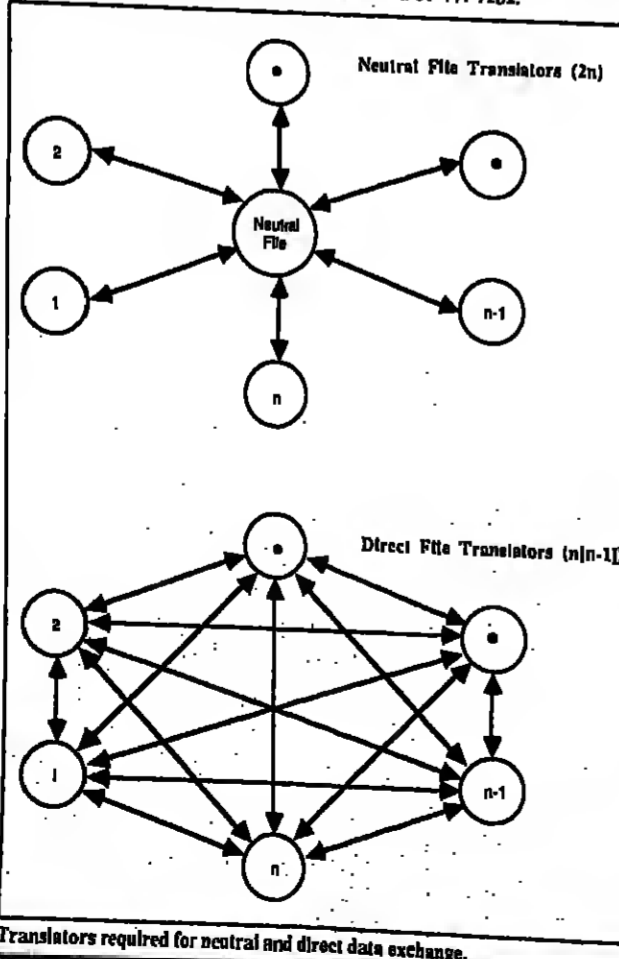
## CalComp

The purpose of all this work is to  
move towards a common graphi-  
cal and alpha-numeric data  
pool from which the different  
disciplines can communicate.  
An example of this in practice is  
in recent developments of the  
CalComp CAD system which  
has recently, in conjunction with  
BSRIA, been demonstrating its  
new developments in integrated  
services and CAD design as part  
of a series of educational  
seminars.

Integrated services CAD is  
not wholly new, but what is new  
is that to a large extent the  
software designs the ductwork  
etc from parameters entered by  
the engineer and automatically  
produces the actual drawing to  
match the calculated specifica-  
tion. This is obviously very  
powerful and the sort of applica-  
tion which makes tantamount  
the need to communicate be-  
tween graphical systems and  
disciplines. As yet these are early  
days for such systems, which are  
largely based upon USA prac-  
tice.

Where one system leads, the  
others are shortly to follow and  
the common need perceived by  
all the intelligent software  
producers is that of compati-  
bility. However much that  
might appear to fall into the  
hands of competitors in the  
short term, it is now regarded as  
the only way to win the respect  
and overcome the fear of the  
majority of users in the long run.

D'Arcy Race Ltd: Steve Race, 96  
Portland Place, London W1N 3HD.  
Telephone: 01-631 4481.  
BSRIA: Jeff Wix or Colin McLelland,  
BSRIA, Computer Centre, Old  
Bricknell Lane West, Bricknell,  
Berkshire RG12 4AH. Telephone (0344)  
426311.  
CalComp Ltd: Paul Lacey, CalComp  
Ltd, Cory House, The Ring, Brack-  
nell, Berkshire RG12 1ER. Tele-  
phone (0344) 50211.  
Connections: SMC Supplies, 125 East  
Barnet Road, New Barnet, Herts EN4  
6RF. Tel: 01-441 1282.



## Getting to grips with Rucaps

ON September 5, I reported on some  
of the recent developments of the  
Rucaps CAD system, which is developed  
and sold by GMW Computers of  
Berkhamstead. The articles here de-  
scribe the experiences of two practices in  
Kent writes Richard Twinn.

Both are relatively new to Rucaps. But  
otherwise have very different practice  
profiles and experience. My main  
concern is in showing the decision  
making processes that have gone on in  
choosing a system (in this case Rucaps)  
and the experiences and problems facing  
the practice in learning to make the best  
use out of this type of CAD.

## PPI Consultants

PPI Consultants is a medium-  
sized inter-disciplinary practice  
in Tunbridge Wells that has  
been running for some 16 years  
as an incorporated company  
with unlimited liability. PPI  
currently has some 40 staff  
which includes five qualified  
architects, a civil engineer and  
structural engineer and a large  
M & E contingent which pro-  
vides the largest proportion of  
staff. The general feel of the  
practice is of a well-established  
business.

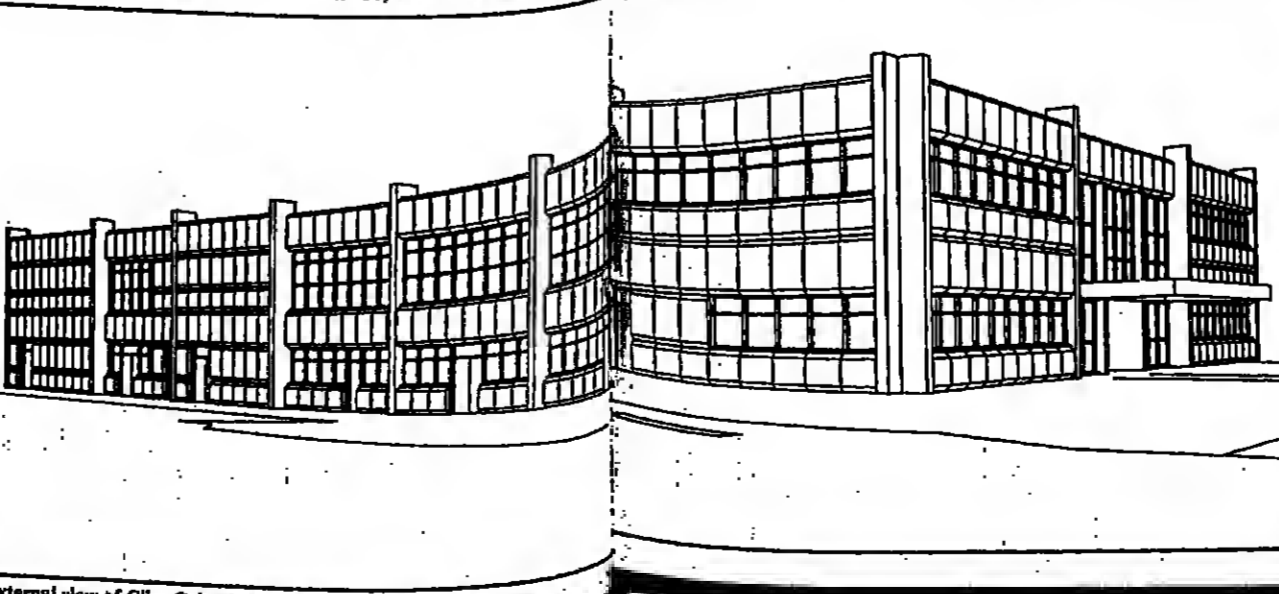
Brian Mead, the senior archi-  
tect and one of the original  
directors, was the driving force  
behind the purchase of a compu-  
ter system. PPI had been aware  
that there was a need to compu-  
terise as long ago as 1981, but it  
was not until last summer (1985)  
that it finally decided to go for a  
Rucaps system. This, as Mead  
admitted, was largely a matter of  
intuition and discovering which  
system they felt most comfort-  
able with. At the same time their  
decision was based on a number  
of very rational criteria:

(a) The system should be essen-  
tially 3D (despite being advised  
by some that they would not use  
this facility).  
(b) It should tie in with systems  
used by both their clients and  
contractors. The PSA are impor-  
tant clients so their views were  
taken into account (PSA/CICA  
report on CAD that came out in  
October last year).  
(c) Two of the large M & E  
contractors (Young Austen  
Young and Haden Young) that  
they dealt with on a regular basis  
were already using Rucaps.  
(d) As a multi-disciplinary  
practice they required solid  
modelling and the facility for  
clash detection, eg ductwork

and steel frame.  
(e) They had a large contract  
several million pounds that was  
suitable to be worked on a day-  
computer system. Before pur-  
chasing the system they were  
sure that their client (Ciba-  
Geigy) was happy with this  
choice.

The system they chose was  
Rucaps Colour system with a  
digitiser, Prime 2250 computer,  
Benson 16 plotter and the  
additional 1/2 workstation which  
can view graphics, set up plots  
and allow standard items to be  
keyed-in. The cost was about  
£100,000. PPI particularly chose  
a more expensive "intelligent"  
plotter than the standard pro-  
vided by GMW as part of  
Rucaps. This allows for greater  
flexibility in scaling, rotating  
etc, but as one user subse-  
quently pointed out, this could  
be a double-edged sword, as  
even a straight forward print-  
out to be set up by a sequence  
of commands that requires re-  
peating and still the plotter needs  
constant attention when re-  
turning to replace worn-out  
etc. The output, however, does  
look very good. The plotter also  
generates a lot of noise, and is  
kept in a sound-proofed room  
away from the rest of the  
computer system.

So far GMW have trained the  
people to use the system, and  
another four are undergoing  
training. Mead pointed out that  
the cost of this, including  
machine time costed at £40 per  
hour, works out at between  
£2,000 to £3,000 per person, and  
that the cost of training at  
present stands at some £30,000.  
PPI are committed to make the  
system work and are aware of  
the cost implications — which  
for some practices can reach  
£500,000 over a five-year period.



External view of Ciba-Geigy laboratories, PPI Consultants.



Laboratory interior showing various services.

PPI are well placed to re-  
cruit competent staff at out-  
of-London rates and feel that  
the expense of training many  
people will keep the running  
costs down in the long run, since  
they will not be reliant on one or  
two "experts" who might be  
tempted away by higher salaries,  
leaving PPI with the problem of  
recruiting skilled staff at pre-  
mium rates.

Brian Mead was full of praise  
both for GMW and for the  
Rucaps Users Group, which he  
had found to be supportive and  
helpful and had taken out the  
full maintenance contract on  
both hardware and software,  
that would enable PPI to be kept  
up to date. As far as installing  
the system was concerned,  
GMW had attended a full staff  
meeting where everybody, in-  
cluding the secretaries, were  
introduced to the system and  
had their questions and fears  
answered. Mead agreed that this  
is an essential exercise if a system  
is to be used efficiently and  
successfully.

I was shown around the  
system by Simon Padley, who  
had joined PPI the same day as  
the Rucaps system arrived and is  
the project architect for the  
major project, the factory and  
laboratory complex for Ciba-  
Geigy in Duxford. Padley had  
had only limited computer ex-  
perience before joining PPI and  
was one of the first to be trained  
by GMW. He described the  
process of learning as akin to  
playing a piano — "just because  
you know how to play notes  
does not mean you can immedi-  
ately play a concerto". Six  
months after being installed, the  
system was starting to become  
fully productive. The first job  
was to digitise — in the survey,  
together with complex under-

ground pipework. Site contours  
have been calculated from spot  
levels manually and digitised  
into the computer. Padley  
explained that it was hoped that  
in due course this would be done  
automatically through a link  
with the Belpase survey system  
running on a separate micro  
system, since the Eclipse system  
has the ability to generate  
contours automatically.

So far the system had been  
largely used in 2-D mode —  
apart from the production of 3-  
D views of the factory and some  
internal layouts. These had  
themselves acted as a catalyst in  
making the client realise the  
urgency of providing correct  
information since, rather than  
seeing abstract 2-D plans, they  
were being shown the full model.  
PPI seem to have chosen the  
right approach in getting going  
— that is to start with something  
large enough but not too com-  
plicated.

One thing they are working  
out at the moment is the order of  
work. Having fixed the site and  
building layout, the structural  
engineers had taken over the  
system and were entering all the  
general steel arrangement data  
into the building model of the  
factory in preparation for the  
steel subcontract tender. This  
could have been a hold-up for  
the architects in other circum-  
stances, but as it turned out the  
specification for the design of  
the laboratories had not been  
finalised. This meant further  
architectural work was held up  
in any case. In the meantime an  
architectural technician was  
entering catalogues of standard  
elements (lab sinks) into the data  
bank; an important prelude for  
doing the detailed laboratory  
layouts.

So far the M & E side were

lugging behind the architects  
and structural engineers, but it  
was thought they would catch  
up once their work really began  
in earnest on the current job.  
The architects were not expect-  
ing to do their working details  
using the system. For such a  
wide-ranging practice just hav-  
ing one full terminal is going to  
prove to be a limitation, and  
more terminals will need to be  
added shortly.

PPI have not fully used the  
clash detection routines, which  
are not "automatic" but slow  
up as a different colour on the  
screen when they are searched  
for. Padley would also like the  
parametric package (where you  
can vary dimensions for a given  
component, eg a staircase).  
However, like everything at this  
level of operation, this is an extra  
even on a £100,000 system, and  
extras tend to have three Os after  
the first digit!

Padley was surprised to find  
limits on the use of text that had  
been resolved years ago on fur-  
smaller systems such as Robo-  
com which he had used pre-  
viously. The 3-D module (Auto-  
prod) does not support text at all  
and even in 2-D mode it is not  
possible to mix upper and lower

case letters. Apparently these  
are matters currently under-  
going development by GMW,  
one would hope that such basic  
facilities would be part of the  
standard upgrade service rather  
than new modules that have to  
be bought afresh.

Note: Since researching this  
article in June, Rucaps has  
indeed been amended to include  
facilities for upper and lower  
case letters, as I have been  
reliably informed by the man-  
aging director, John Davison.  
In addition this facility has been  
included free of charge to  
existing users. It is heartening to  
find such alacrity in rectifying  
shortcomings and responding to  
user requirements — not many  
managing directors of CAD  
companies can be that con-  
cerned with such details!

Generally speaking, PPI and  
their Rucaps system seem to be  
settling in together comfortably  
with no shortage of work. Being  
a mature practice they do not  
seem at present to be intimid-  
ated by the cost of running the  
system and are looking forward  
to reaping the benefits that it  
should offer. I hope to be able to  
give an update in due course.

continued page 42

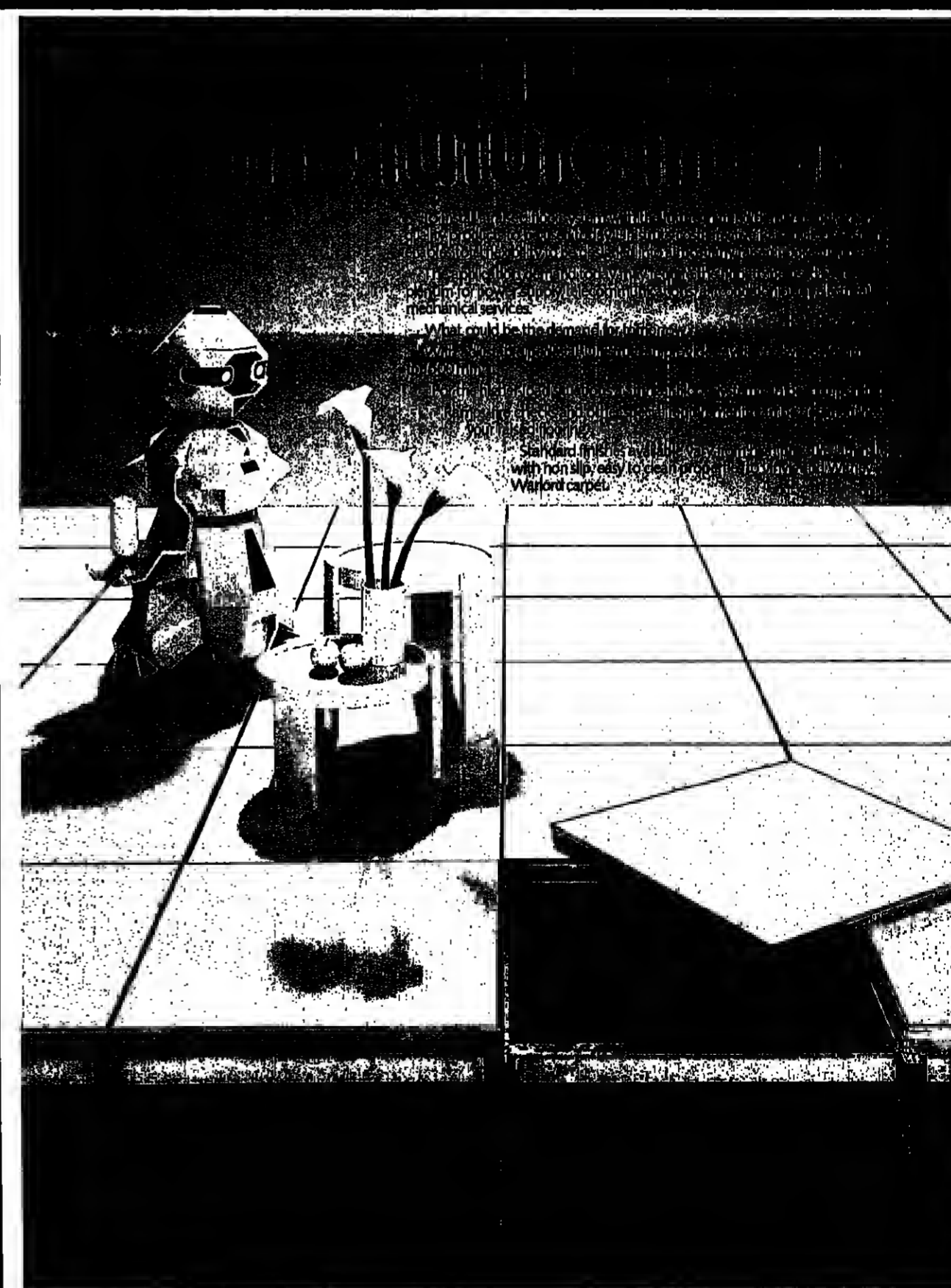
## Drawing award

ARCHITECTS Frank Shaw &  
Partners of Chesterfield  
have won this year's compu-  
ter-aided draughting (cad)  
competition, organised by  
the manufacturers of the  
Rucaps cad system, GMW  
Computers of Berkhamstead.

Entries were received from  
both national and inter-  
national computer users,  
now numbering 96 in total.

There were three cate-  
gories of entry, with Paul  
Bower of the practice win-  
ning category 1 and £500 for  
the most comprehensive  
visual drawing of part of a  
proposed building. Lynne  
Haywood of the practice was  
placed a highly commended  
second in this category.

Bower was also highly  
commended in category 2 for  
his submission demonstrat-  
ing the use of the system in  
producing three-dimension-  
al visualisations from a  
proposed building.

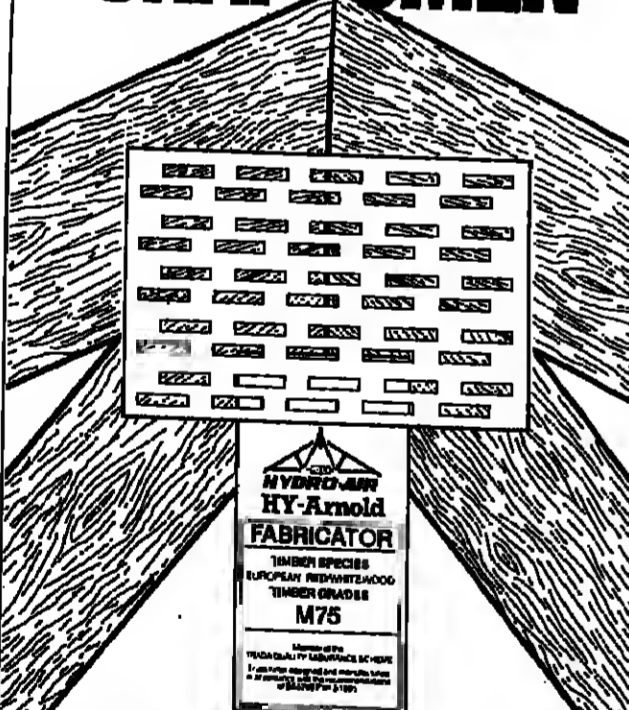


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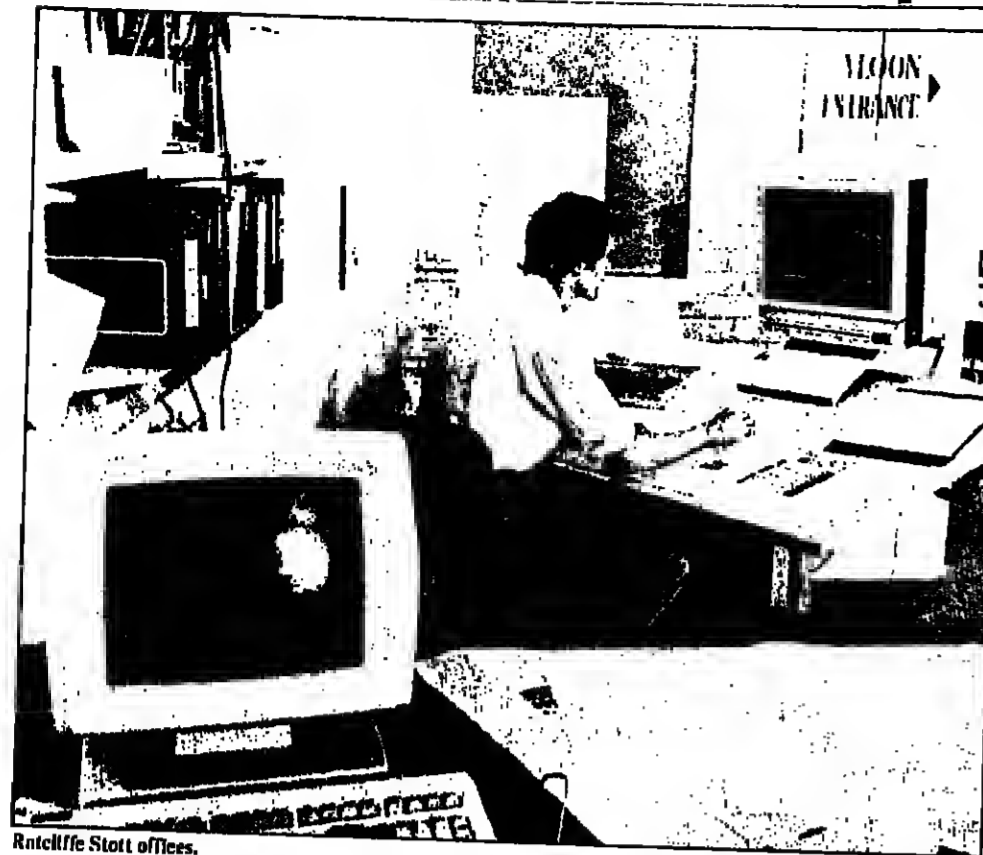
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Ratcliffe Stott offices.

### Ratcliffe Stott Associates

RATCLIFFE Stott Associates are quite a different architectural practice from PPI Consultants. For a start they are a young firm (three years old), quite small (10 people including four qualified architects, two interior designers) and they concentrate on architectural and interior design work, much of which is interior refurbishments of hotels and restaurants.

The work I visited was a hotel, restaurant and bar conversion for the Harvester Group, recently affected by the Hanson takeover of the Imperial Group. The largest building so far completed on Rucaps is a £2.6m hotel in Ashford, now under construction. A feature of their work is direct running of contracts in which they participate actively in the final stages of fitting out — on the principle that what the client sees in the end counts and that this is too important to be left to contractors.

Mike Stott was for some time senior architect for Trusthouse Forte Hotels, with whom he was responsible (among other buildings) for the attractive Post House Hotels just outside Cambridge and at Wrotham in Kent. His wife, Jill, is an interior designer, and together in 1983 they broke free from the constraints of corporate life to set up Ratcliffe Stott Associates.

While at THF, Stott had carried out feasibility studies on the use of appropriate CAD and had come to the conclusion that Rucaps was the best system for THF, who balked at buying a system at the last moment. Another close link Ratcliffe Stott had with Rucaps was that Stott had known John Davidson (the managing director of GMW), from the early days.

Once set up, it was quite natural for Ratcliffe Stott to wish to go for Rucaps, having seen the need for CAD in the field of hotel and restaurant design where millimetres of table/bed space can determine the commercial success of a business. At first Ratcliffe Stott rented a DEC system from GMW Computers since GMW were interested in helping set up such a new practice with Rucaps. Ratcliffe Stott started by being committed (and still are) to making CAD work as a 2-D and 3-D design tool rather than just a working drawing production mechanism.

The major problem from the outset was the need for expertise in handling the system. The practice had started so well that Stott himself did not have time, nor did he really want to be, the computer manager. The answer was found in an advert (placed in BD in October 1985) looking for "A Lion Tamer to control a Rucaps CAD of a Beast". This came to the attention of Ian Bevan, a qualified architect who had been churning out working drawings of hospitals using Rucaps for Frank Shaw & Partners in Chesterfield for five years. His reply started "Dear Ringmaster" and consequently he got the job, finding that New Ash Green was unique in the South-east in having a pleasant rural environment and affordable housing.

The first thing Bevan did was persuade Ratcliffe Stott to upgrade from the DEC system to the Prime 2250 which he had found to be vastly superior when installed at Frank Shaw's. This was done, at which stage, Ratcliffe Stott took the opportunity to rationalise the whole system to a lease purchase at

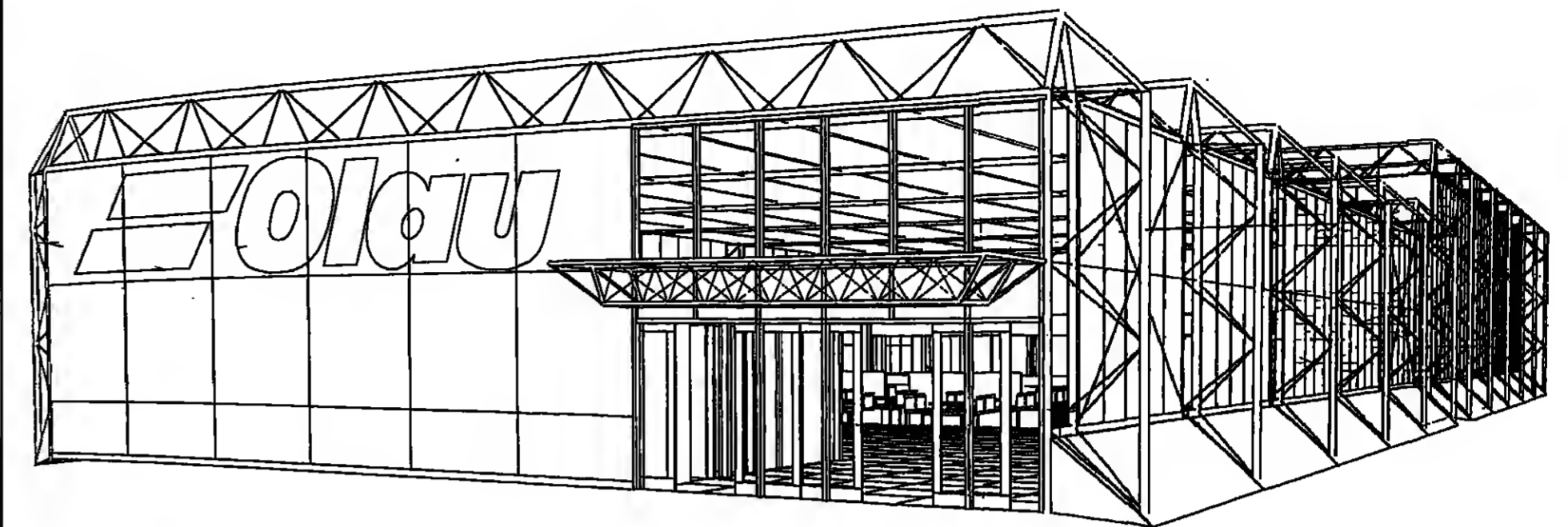
little extra cost per month although over a long period.

The first system had been set up in a green tent in the New Green office to protect the system from dust and heat. The time I arrived to see the system (mid-June) the practice had moved across the block itself, and the computer plotter (Benson 1328) was installed in their own purpose-built, air-conditioned, sound-proof unit. What the manufacturers say, it is not to keep all computer equipment cool, because heat degrades chips, which causes a lot of extra cost.

From an initial impression it is clear that the use of computers has permeated the office. For instance, the accounts and sheets have been on computers since the practice started. Digital Rainbow micro, purchased as part of the Rucaps package. This is not the practice administrator's standard accounting programme (Pegasus), word processing (Wordstar) for letters, and a spreadsheet programme for job costing. The so well established that it is hardly commented upon. The Rucaps system (AO design and Sigmex colour screen) is set up in the centre of the planning office and is used by Bevan and a young junior designer.

Bevan disagrees with the policy of training lots of people simultaneously, because it poses a large economic load on the office. Unless the system is used regularly, training can be soon forgotten. Ratcliffe Stott are thus pursuing a gradual policy of acclimatisation and training for their other staff.

The CAD system has proved itself effective in capable hands particularly in the hotel design at Ashford where the client was delighted to see for the first time all the furniture set out on the floor plans. But Ratcliffe Stott did not, on this occasion, do the working details using the computer. Finding hand-drawn details efficient for this type of building. Large sections of spec notes were done on the word processor and pasted on to the drawings to further increase capacity, within a tight working drawing programme. The system was, however, very effective as a production tool, including a bureau service to the structural engineer for all its base negative general arrangement drawings.



Olau ferry passenger hall.

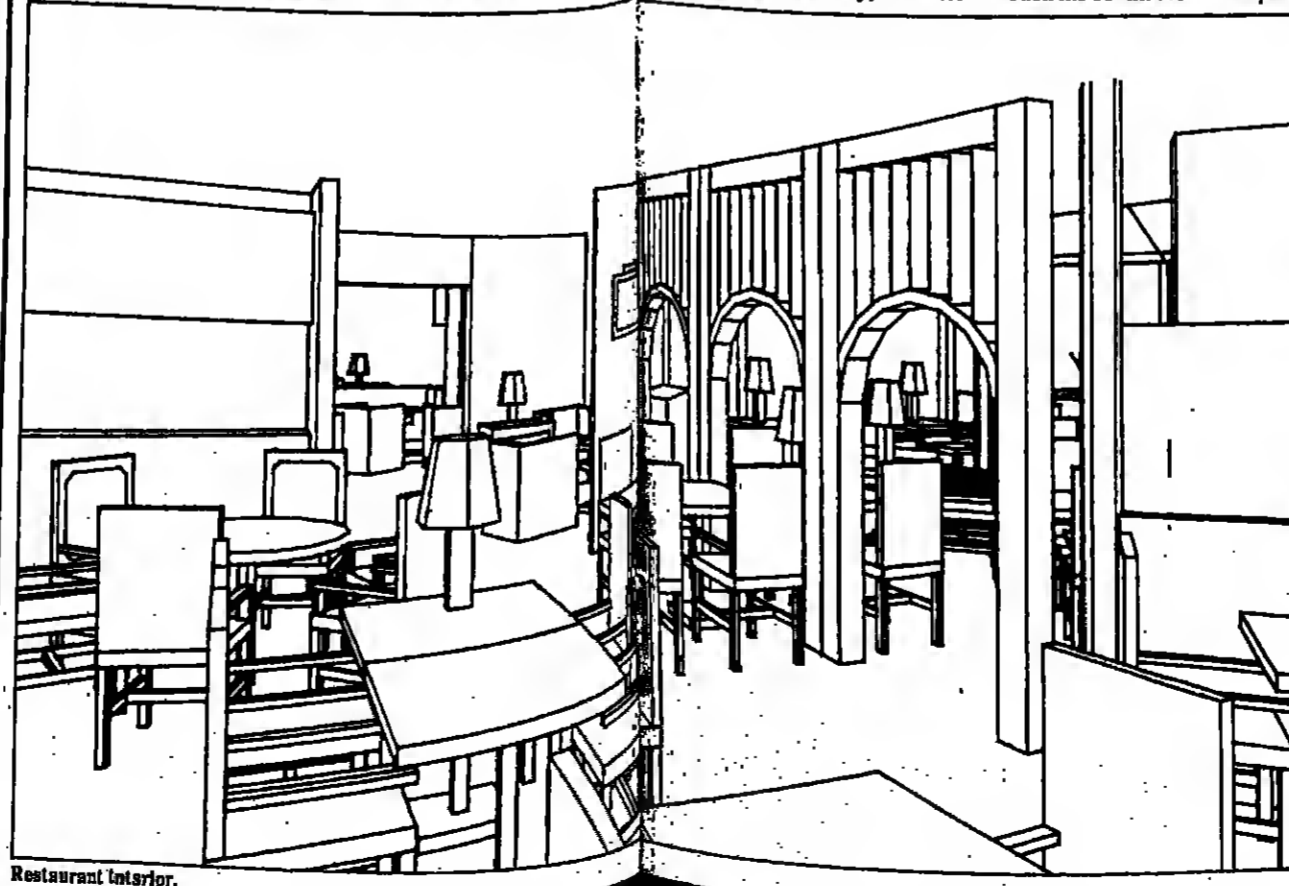
The 3-D facilities are effective in quickly replanning restaurant layouts due to last-minute client alterations, and in showing in 2-D and 3-D alternatives (see illustrations). For a small practice the main problem is in continuity of work, ie in finding suitably sized projects with a degree of repetition where CAD is most effective. Their criteria for deciding whether or not to put a scheme on to Rucaps are: (a) how effectively CAD would be used as an appropriate technique for the job; (b) whether the computer is available/extension of working day; (c) client's expectation of whether CAD would be used; (d) effectiveness of CAD as a sales support tool.

The efficient use of the CAD system is naturally a major preoccupation of the senior partner, particularly since the cost of maintenance alone (hardware and software) is in the order of £1,100 per month. One reason for investing in the system is the ability to do large (and even huge) jobs with only a small workforce. It is hoped that a major contract in the Mediterranean will shortly fall on their desks (or rather on the monitor), at which time they will be able to afford to add a further colour workstation and colour solid modelling capability, the latter

alone being an extra £21,000. They are also interested in the new RDM application (related data management, which adds a specification as part of the component description) for a further £5,000.

Ratcliffe Stott are setting up a computer bureau company with a local structural engineers practice, John Allen Associates, to provide support for both offices and offer a service to other practices in the construction field. The two practices are working together on a project for a new passenger hall for Olau Ferries at Sheerness, the design scheme recently completed on Rucaps in two weeks and a 40-bedroom retirement care home in Kent.

The practice is also actively diversifying into the office and commercial field. Ratcliffe Stott have shown that a small, young practice can invest in CAD and, provided they find the right staff, can make full use of all its facilities, particularly on the 3-D side. Mike Stott knows that he is taking a risk with architectural work load being so variable, but he equally knows that, if successful, his practice will be able to deal with the size of jobs that he is used to doing and wishes to continue doing, and feels that clients will respect and back his commitment. I hope so.



Restaurant interior.

## Computers/Rucaps

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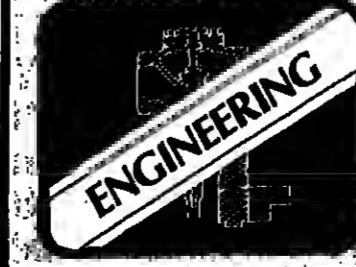
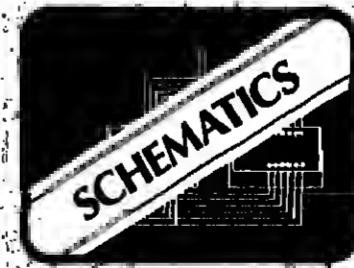
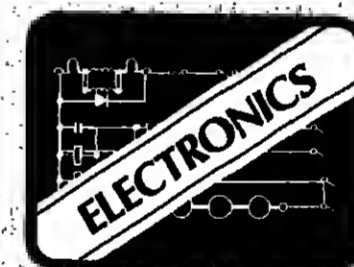
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# Corporate images

GABLE has been a well respected integrated CAD system on the university circuit for several years, being originally developed at the Sheffield University school of architecture.

Commercially it has had its problems. Initially it was marketed by Genesis which has since disappeared from view, and it is now marketed and developed by Gable CAD Systems Ltd.

On the technical front Gable has always been a strong proponent of integrated design, ie the ability to carry out design evaluation (eg condensation risks, energy losses, specification etc) in tandem with draughting and 3-D modelling. Early versions of Gable were painstakingly slow and relied heavily on inbuilt hardware facilities, which themselves became obsolete and required the complete rewriting of the software about four years ago.

Such difficulties are history. Gable are now sporting a range of software comparable with many of the early market leaders and running on very much state-of-the-art hardware. The university connection has no doubt helped with University Grants Committee approval of the system, and the subsequent deal worth £2.5 million to supply all university schools of architecture (and indeed all universities) with Gable. Apparently a similar arrangement is being entered into with the polytechnics.

Such background weighed heavily in favour of the system when Wallace Camp, a partner with Stewart Riddick & Partners, was on the lookout for a CAD system to help establish a power base to take his practice into the 1990s.

Stewart Riddick & Partners have been practising for 15 years from north London, and are responsible for a wide range of retail and commercial developments around the country as well as leisure facilities, banks and private housing. Their largest project to date (and designed on Gable) is the huge London Docklands Arena sports centre, which is still under construction.

The practice is at pains to point out that it never turns down work, however small,

preferring to pass on the smallest jobs to employees to do in evenings and weekends. Much of their work is with, or on behalf of, corporations, institutions and developers for whom they carry out management contracts if required. They are not multi-disciplinary in the sense of having structural and M&E engineers, but are multi-disciplinary in providing a blend of services on the management side reflecting their partners' professional backgrounds: Stewart Riddick is a surveyor, Cedric Chates a civil engineer, Wallace Camp an architect and Harvey Albert an interior designer.

Riddick makes no bones about wishing to develop a corporate structure and image, both to attract the corporate client and to circumvent the problem of practices relying heavily on the reputation and personality of the senior partner. "Corporation," says Riddick from behind the wheel of his light-blue Rolls, "virtually go on for ever."

It is with this philosophy that Stewart Riddick & Partners are going about expansion, which so far includes designing and building their new offices in Finchley, which exude established values and longevity both in their materials, proportions and well-detailed interiors. Such a building (apart from the yellow space-frame on the foyer ceiling) would be equally appropriate in style to a bank or insurance company. The offices themselves are a pleasing addition to the street scene, and have won a suspicious populace in what is Margaret Thatcher's constituency. As far as future expansion is concerned Riddick makes no bones about his desire to acquire other practices in the locality that require an injection of fresh capital, ideas and management. As yet there is no wish to be absorbed by a larger grouping.

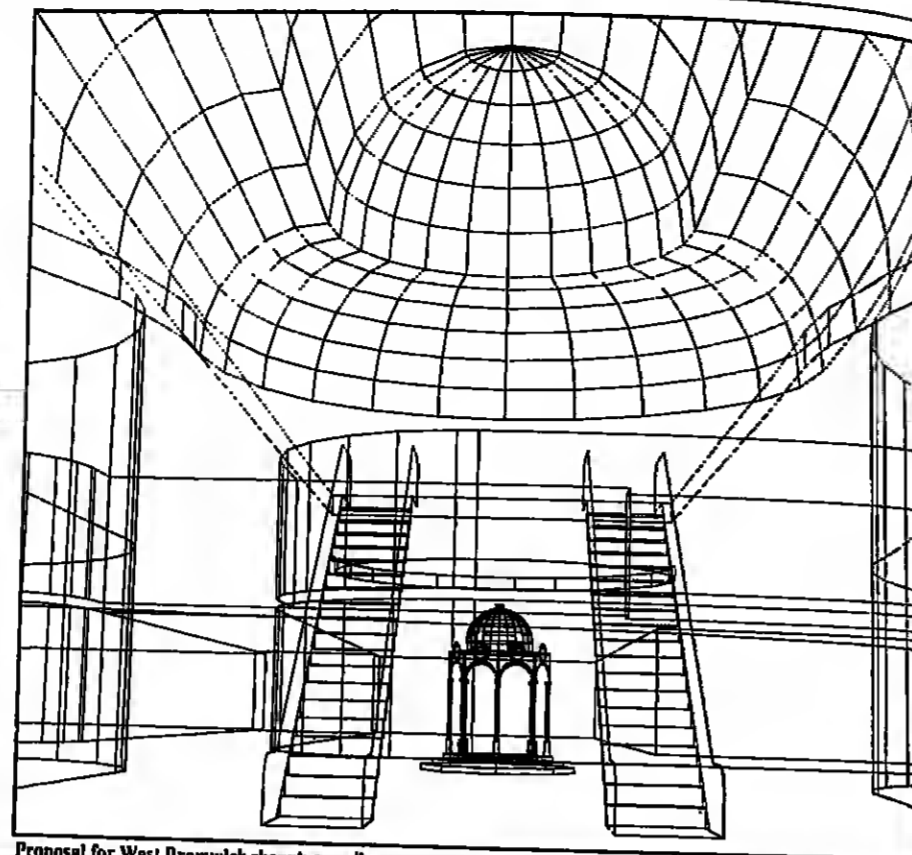
Purchasing a CAD system is very much part of the forward expansion of the "competent and successful" policy, Gable was chosen because it offered:

- (1) a secure development base, not totally tied to commercial pressures;
- (2) a relatively cheap entry cost of about \$65,000;
- (3) hardware and software

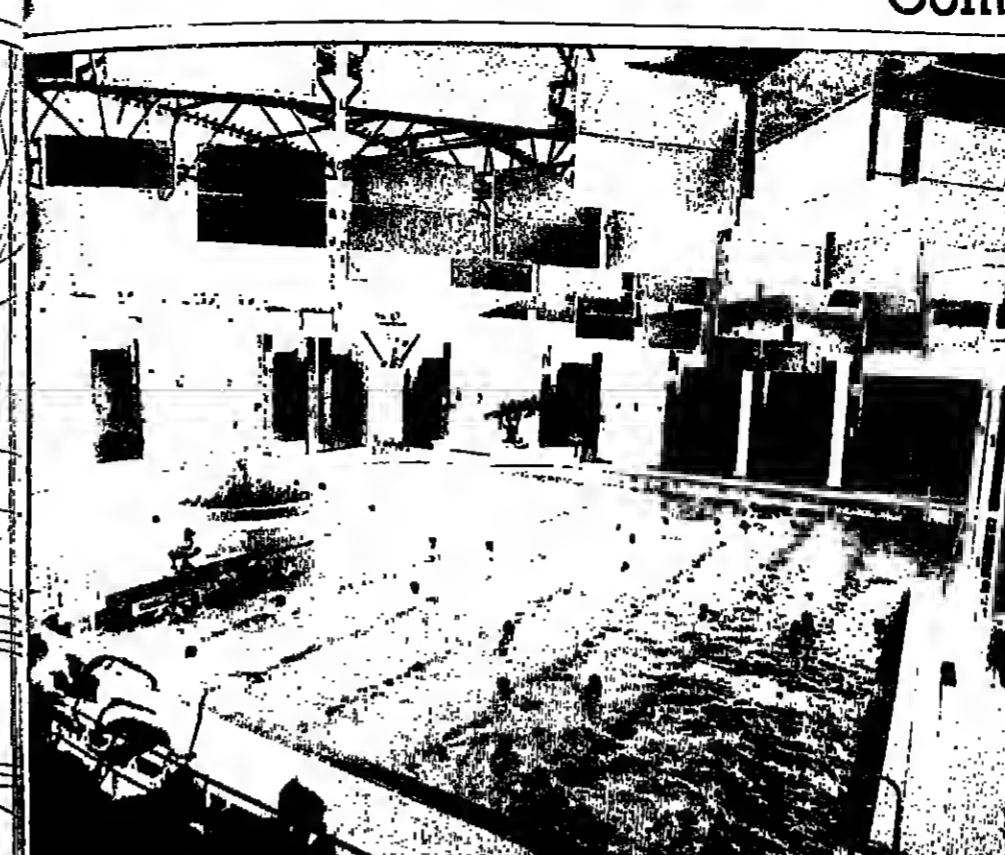
maintenance of 10 per cent purchase cost per annum;

(4) ability to add extra work stations without adding additional software costs.

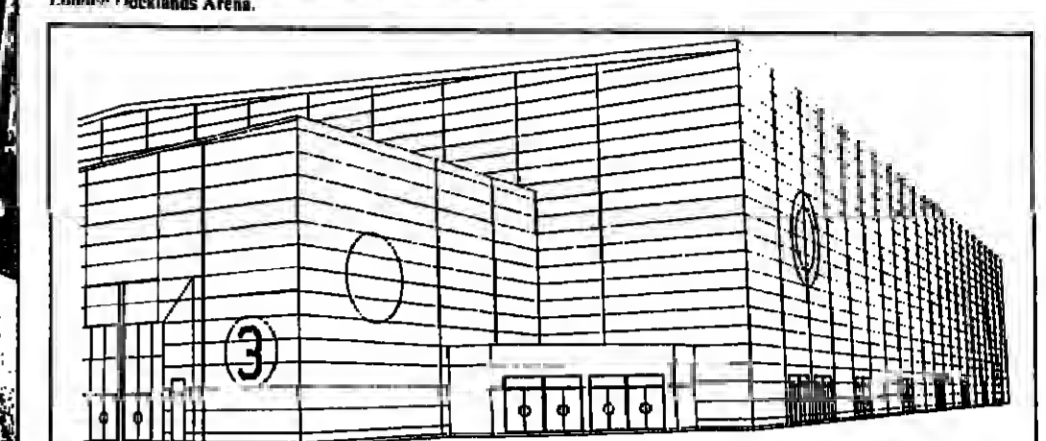
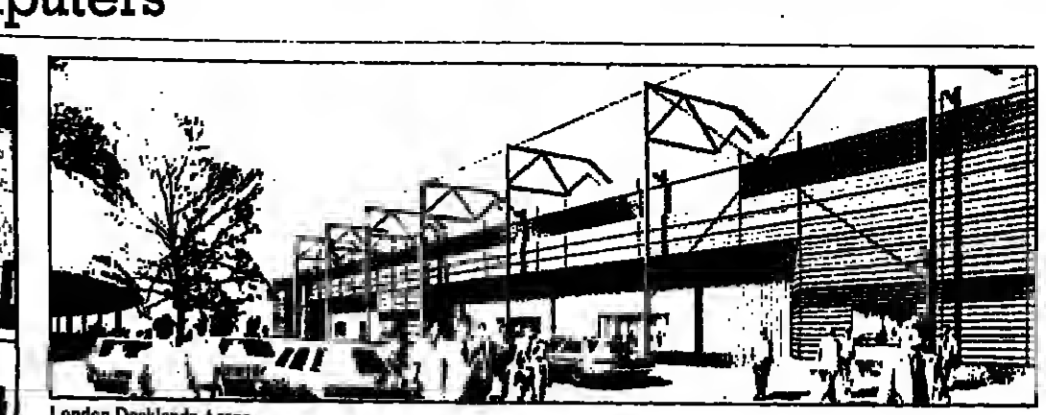
The system was installed a year ago and recently moved into their new offices. The practice were astute in snapping up Andrew Bevan, who had been using the system for three years already, straight from the Sheffield school of architecture. This enabled the system to be used "in anger" from the start, and generated immediate demand for extra software and hardware facilities, that has just about doubled the initial purchase price. Bevan has helped train some five to six other members of the practice, and



Proposal for West Dromwich shopping mall.

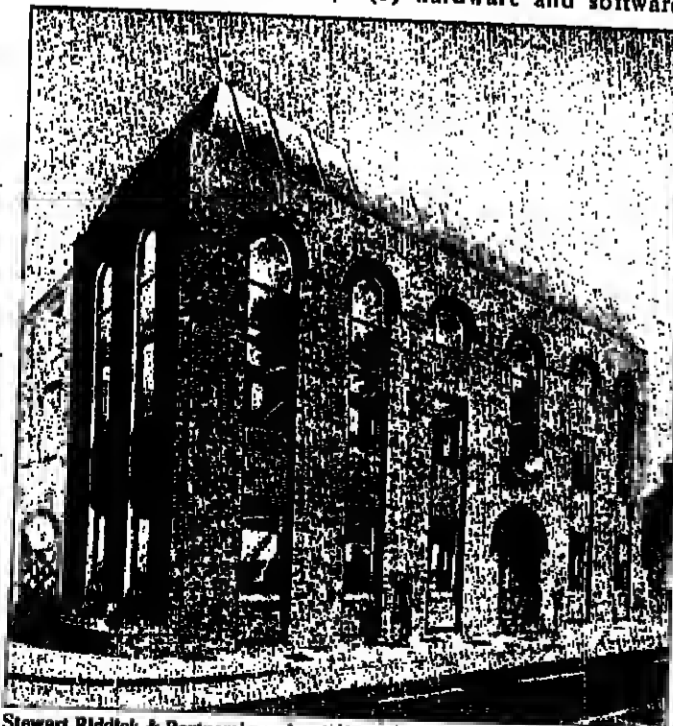


Magfisher leisure pool complex, Kingston upon Thames.



Large multi-purpose space.

## The ups and downs of Downland.



Stewart Riddick & Partners' new head office in Finchley.

Camp is at present negotiating with the Manpower Services Commission for funds to train a further 15 users at their offices, a facility that other users of CAD might note.

Since purchasing the system the practice has added a further two colour workstations with 14in colour monitors (Tetronix 4106A) and bit-pad input tablets (Tetronix 4957). The plotter is a Hewlett Packard 7585B AO pen plotter. The whole installation fits neatly into some 250sq ft of office space, wires to the central processor being discreetly hidden in purpose-built ducting that runs throughout the building. The processor (in a separate room) is the powerful Data General (MV 4000 DC) with 3 megabytes of memory.

The computer itself is powerful enough to allow six graphics terminals to work simultaneously on different projects, plus run networks of terminals for carrying out wordprocessing and management functions. Current software for the latter being written in-house is rather piecemeal, and alternatives to run on the Data General are being sought.

I saw some impressive work presented as an automatic "play-through" demonstration that had been prepared beforehand but which showed real-time generation of hidden line perspectives as well as sample working drawings. The performance was unrecognisable from the earlier version I saw three to four years ago, and nobody could accuse it of being slow. The problem of getting enough data on a 14-in screen is offset by the stunning colour quality of the Tetronix screens, and the competent working drawings were proof of the efficacy of the system to do more than generate flashy graphics. The practice is wedded to colour, and have not really considered purchasing a 20in mono screen (which can be particularly effective for work-

ing drawings) as a prelude to purchasing a 20in colour screen which Camp considers at present to be too expensive at around \$15,000.

The system to date has been used successfully for early 3-D and elevational design evaluation, environmental design analysis and working drawings, though not as yet for working details. The practice are still learning skills, particularly with regard to entering tight City sites with unknown angles and dimensions. Finding the level of tolerance to work with is an important feature of using CAD, which tends to require very accurate data to function. With accurate data (eg site survey) the computing power can be quickly harnessed as the practice found in winning a limited competition for the GLC residual body for industrial units in Lewisham, where the winning scheme was generated in just three days.

The user group is still quite small, with many of its members going through the process of upgrading obsolete hardware and software. The availability of droves of trained Gable users emerging from schools of architecture is going to play a major role in the development of the CAD market in the years to come, which will no doubt soon expand the number of users.

Stewart Riddick & Partners are convinced that they have made the right moves in establishing a corporate base, powered by the extra CAD facilities that they can offer clients, from which to do battle with their competitors, the design and build companies. They also hope to dispel the myth that there are only three architects in the country.

Wallace Camp, Stewart Riddick & Partners, Stewart House, 930 High Road, North Finchley, London N12 9RT. 01-446 4131.  
Rick Hall, Gable CAD Systems Ltd, Arts Tower, Western Bank, Sheffield S10 2TP. (0742) 700696.

If you require further information on the new products on these pages use the reader enquiry card provided.

# Learning curves

IMAGINE if hand draughting was related to riding a bicycle (dependable, flexible and fast in traffic) and running a mini-computer CAD system was akin to driving a (more or less powerful) car, then doing working drawings on a microcomputer is a bit like hitch-hiking.

You know you will probably get there in the end — but after several lifts and in an uncertain time. If you are well dressed and know where to stand, hitch-hiking can be effective, as I found, having missed the train in Ipswich to go and see Hugh Feilden of Russell & Feilden Architects, in rural Suffolk.

Russell & Feilden are a small practice formed about five years ago by Clifford Russell, an experienced architect of the old school who has since retired to consultancy status, and Hugh Feilden, who qualified at Csm-bridge in 1977. The practice has been largely rural based, working on one-off extensions, doctors' surgeries and more recently with developers on sheltered housing. In fact it is a typical small practice of which

there are hundreds and just the sort of market that the micro-computer CAD market is aiming at.

Feilden has been interested in micros for years, buying a Sinclair FX81 when it first appeared and, missing the Apple II/Commodore years, moved in and bought one of the earliest IBM PCs that came into the country over two years ago, so early in fact that he has since had many problems in correcting and enhancing the hardware which was an American import and not made in Britain or Greenock, which led people to think it was a far-eastern copy!

Despite early hardware difficulties, the IBM PC proved efficient and cost-effective from quite an early stage, being used

for word processing and spread sheet analysis. The latter has been used extensively for providing door, window and ironmongery schedules, fee calculations, hourly job costing, VAT calculations and contract estimation which has "saved his bacon" on several occasions and proved remarkably accurate in practice. Feilden also purchased the Silicon Office program (from Bristol Software), which is a database applications package, and programmed this himself for producing priced schedules of work and specifications.

All in all the use of the computer had been successful. The retirement of his partner and the move to Oxford into his newly renovated offices (a

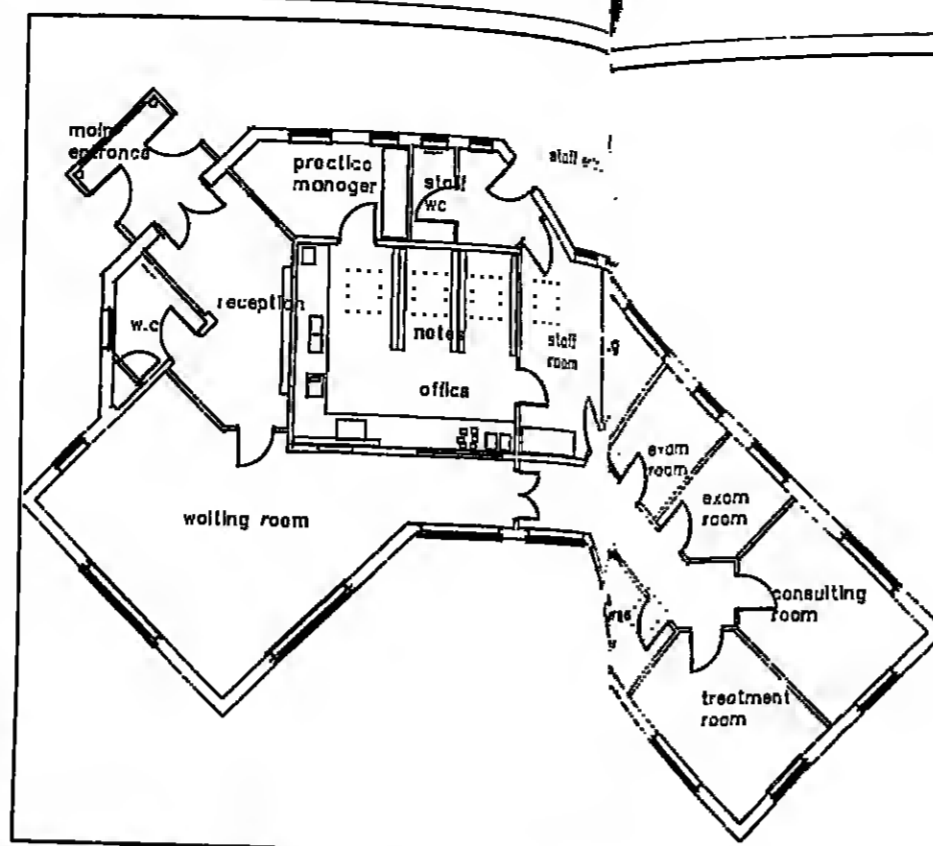
tastefully converted ballroom adjoining his house) provided the impetus to launch into CAD. Feilden's main concern was to be able to produce working drawings without reliance on technicians, and be able to do with lines what he does successfully with words and figures. Russell and Feilden went for an Autocad system for the following reasons:

(a) RIBAS were providing manufacturers' data for it (RIBACAD) and the combination of RIBA and Autocad were "names which aren't going to go bust on you";

(b) it was available on the IBM PC and could be provided and hopefully supported by a local IBM dealer;

(c) the extra investment cost of £240 per month (over three years) only required a saving of 10 hours a month of office time, if you charge at RIBA recommended rates;

(d) it looked quite easy to learn. Last Christmas Russell & Feilden purchased the software together with a 20MB hard disc drive, Hewlett Packard 7475A A3 plotter, Calcomp 2000 15in x 15in digitiser and upgraded the IBM PC to 640K and inserted



Russell & Feilden on Autocad.

(somewhat late in the day) an 8087 chip (maths coprocessor) — to make it all run faster, an essential requirement in Feilden's view. After nine months of using the system Feilden now employs two part-time technicians. He uses Autocad system himself, though has found that certain limitations of his system make it no adequate substitute for good technical draughting. His experience can be summarised as:

(1) "my dealer hadn't got the faintest clue about how to use the program";

(2) "the potential is certainly there but it takes a long time to reach that potential";

(3) "you have got to get into the sophisticated bits to make levers forward";

(4) "it takes as long to draw on the computer as it does by hand, when putting the drawing in first time";

(5) "the most useful feature is the manipulation of drawings, for instance drawings can be entered at any scale. This is helpful in converting from Imperial to Metric and for entering survey data. It has also proved effective in providing technicians with co-ordinated base drawings on which to work at different scales";

(6) the current 3-D facility is poor, there being no facility for sloping roof planes. The hidden line removal takes about 1/2-hour for not a very complex building (it is apparently down to 10mins on the IBM AT which is still slow compared with many true 3-D programs). Better 3-D modules are apparently on the way;

(7) the use of a standard 12in screen is too small to draw on accurately. The system is complex and it is difficult to remember which "layer" of the drawing you are working on, particularly with the relatively low resolution mono screen. Feilden feels that the major priority is to get a 20in CCG (Cambridge Computer Graphics) screen (costing about £2,500);

(8) there is a limit to the use of the A3 plotter — especially when so much of the practice is geared to A1 drawings. The colour facility is useful for adding services (lighting etc) but has limited application until colour copiers are more readily available. Feilden is considering the purchase of an A1 "turbo-plotter" which marries around a flat board at a fifth of the speed of the A3 plotter. He has yet to act in action.

(9) "elevations produced tend to look mechanical, with little variation. Windows drawn in

detail tend to visually put themselves forward on any elevations";

(11) RIBACAD is potentially useful, but at present there is little actual data available (eg one range of sanitary fittings and some roof files) which would be greatly enhanced by having say Boulton & Paul windows and doors. One criticism of the data supplied is that it is so detailed that it takes some time to "switch-off" attributes before plotting and printing. (This is a criticism even common to those using RIBACAD with GDS);

(12) entry of survey data is quick and effective;

(13) facility for mirroring has proved effective in the case of a client who decided at the last moment to turn everything round. On the computer this is just one command rather than a complete redraw;

(14) the major cost is in learning to use the system.

In discussing progress and current developments that Autocad is producing (eg addition of LISP to allow generation of "macros" that allow for automatic generation of cavity walls etc.) it became clear that Autocad is really moving out of the sphere of what we at present consider to be micros. Its facilities are comparable to many large scale CAD systems and indeed Steve Race of D'Arcy Race (covered in another article) is seriously considering moving from a conventional mini-computer GDS (General Drafting System) to a network of terminals running Autocad software.

At the end of the day any 3-D draughting requires a very fast processor, a large high resolution screen and perhaps simultaneous colour. At an address about 2 megabytes of simultaneous memory and a large hard disc storage capacity. The difficulties with trying to run sophisticated software on less than adequate hardware and with a limited training budget are apparent: you need to learn as much as running a mini-system, such as CalComp, without the help of powerful hardware and with limited output. The cost of purchase is so low (and getting lower) that the dealer is likely to be ineffective in supporting you — unless he (or she) has no money to do so.

It so happens that there is a new machine that has just recently been launched specifically with Autocad users in mind (Autocad is very successful in America, if less so in the UK).

This is the Compaq DeskPro 386 which starts at £5,399 and utilises the new Intel 386 silicon chip that is reputed to be the basis of future IBM models. This chip itself has vast potential for providing extra speed and power, and its use in the DeskPro 386 goes some way towards this, while running most (but not all) IBM PC and AT software.

Feilden has found the user group to be helpful in exchanging ideas and advice, and is impressed particularly with the work of the East Anglian Regional Health Authority, who have been able to install Autocad in a thorough manner, not being constrained by the same budget and time limitations of a small practice. This is noticeable for instance in time spent methodically recording components for future use, which is essential if you are to get the best out of any CAD system. The user group still numbers less than 150 in this country, of which less than 30 are private architects. Hardware varies from company to company.

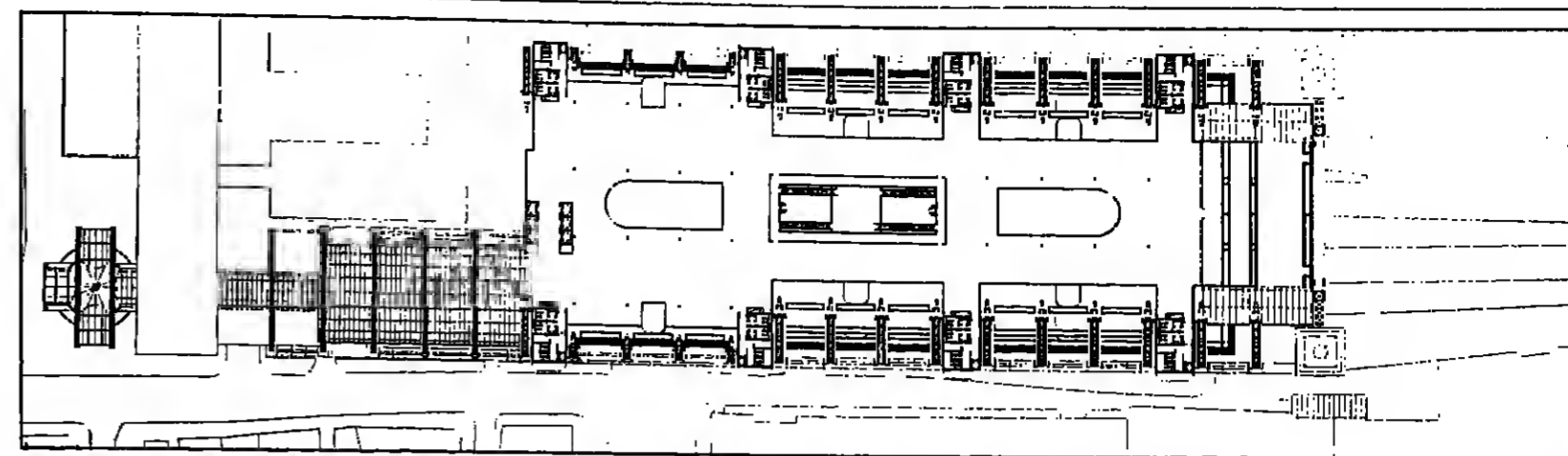
Those who seem to be doing best are the services engineers, for whom such software was originally written, and it was apparent from the work done by Russell & Feilden that the ability to overlay electricals and produce selected plans of the same in colour is the most effective output so far that I saw, together with some useful (if not pretty) layouts and 2-D projections for internal planning.

Architects, though a small grouping within the user group, are quite active in organising the user group. Alan Ray-Jones of RIBAS is Membership Secretary, and the former chairman Philip Keevil (of Keevil and Gregory, Northampton) has just set up his own company, Applied CAD Services Ltd, both to sell Autocad and provide training and backup services. These are collectively marketed as Soft Pencil (full workstation £18,500) and Mini Pencil at £8,500. The company will also provide separate training and are selling a range of fonts and database components for between £15 and £125.

Feilden is philosophical about his experience to date, and puts the expense down to a necessary learning curve which everybody will need to go through in the next few years in one way or another.

Autocad User Group: varies by region. Alan Ray-Jones, RIBAS 01-637 8991. Applied CAD Services Ltd, 14 Billing Road, Northampton NN1 5AW. Telephone: 0604 20093.

## Computers



Computer-generated drawing of SBT's design for offices over Cannon Street station in the City.

# GDS trouble shooters

SCOTT Brownrigg & Turner (SBT) were one of the first users of GDS (Graphics Design System) in a private practice and have been one of the trail-blazers of CAD.

Trail-blazing is a two-edged sword, as one of their partners Chris Blow described. On the one hand you are using the latest technology and so have a lead; on the other hand you are having to find out how to use the system successfully and put up with the birth pangs both of software and hardware.

After six years of using GDS on Tektronix equipment, that had become obsolete within two to three years of purchasing the system, SBT have recently re-equipped both their London and Guildford offices with seven intelligent colour terminals by Ramtek (4225), which are compatible with the latest Tektronix equipment, but have cost advantages.

Their other benefit is that the new terminals control a local memory, which memorises a portion of the total building model taken from the central Prime mini-computer. This allows for far faster redrawing of the building section being worked on.

The Ramtek stations also have the benefit of interfacing with graphic pads containing instructions held in iconic form. This has by all accounts greatly speeded up entry and learning times, and brought the user interface up to the level of other comparable systems in this respect. Colour has helped by differentiating between elements and components, as well as recognising recent additions. The new hardware has also enabled the generation of sophisticated solid modelling.

An important feature of re-equipping has been to keep the SBT staff happy, and reduced the temptation to go off and work for others on newer, more sophisticated equipment. It is known that the major cost of a system is in training time and the loss of a trained employee is a capital loss. SBT, having clocked up in excess of 80,000 hours, are philosophical about having trained a number of people who then moved on to run other architect's CAD systems. Until there is a substantial pool of computer-literate architects this will be inevitable, though I have not yet heard of any "golden hellos", and architects tend to maintain a facade of benevolence towards their competitors.

SBT are planning to apply modern communications technology. This involves using a Kilostream link between their Guildford offices and their London office. This, according to Blow, will be of enormous benefit not only since both offices can work on one building model, but also since it should be necessary to upgrade only one lot of software. Terminal 4 at

Heathrow has been for some time the showpiece scheme carried out using GDS, but they have been moving on with a series of schemes for Digital Equipment Co.

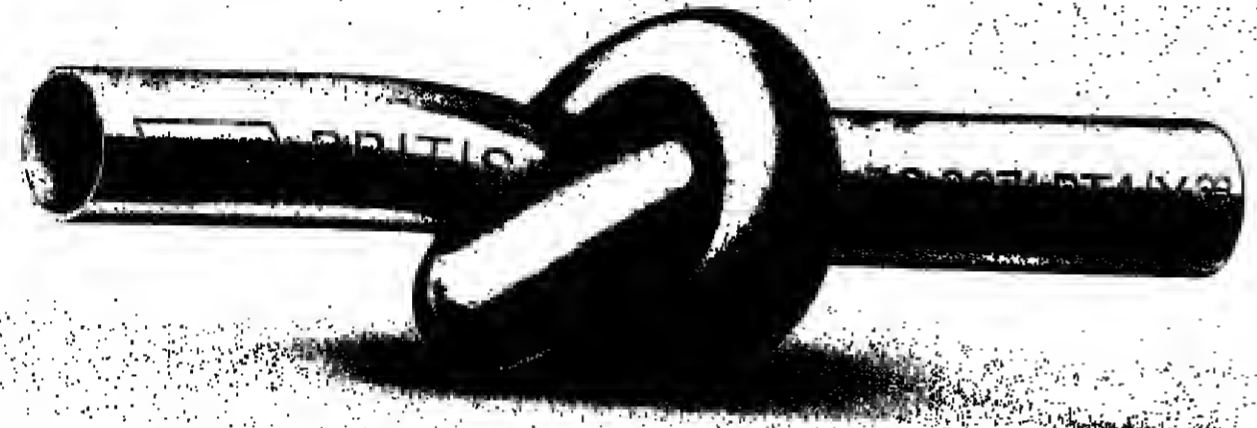
Like Steve Race (of D'Arcy Race), Blow feels that the move from ARC (Applied Research of

Cambridge) to McDonnell Douglas has resulted in a loss of service. Whereas before the buy-out Scott Brownrigg & Turner received personal attention from a close-knit team of boffins, now when they ring up nobody knows who they are! Perhaps Blow's position as

chairman of the RIBA Computer Group may have some effect, though he himself is pessimistic. It is quite clear as most of the major systems are reaching comparability in terms of performance, that the main criteria for choosing a CAD system (just like choosing an architect) is an

evaluation of the support and after-sales service offered and even the largest company should pay attention.

Allison Bromlow, Scott Brownrigg & Turner (0483) 68686. Steve Scarce, Ramtek UK. (0256) 469541. Paul Purvis, Datadraw. 01-379 5958.



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# Coming up fast

**PARKING** your car on the Cambridge Becks and walking north through the Botanical Gardens brings you out right opposite a pair of Victorian town houses. The red door-furniture, obligatory grey carpet and Formax ceiling are unmistakable signs of the presence of architects.

Indeed it is the offices of Forum Architects, who are not only one of the most recently arrived architectural practices in Cambridge, but also possibly the only private practice in Cambridge using a large-scale CAD system, a fact somewhat surprising since Cambridge is the home of GDS (the McDonnell Douglas CAD system), the CICA (Computer Industry Computing Association) and a well-known haven of high-technology.

Forum Architects were founded in 1979 by David Lee and Barry Coupein. Since then, moving into Cambridge two years ago with six staff and now employing 15. Much of their work is with the PSA, who are now close by, the Post Office, Trust House Forte and the Texas and Queensway stores for whom they run design and build contracts. They also produce a traditional traditional work. As a practice they think of themselves as small and enthusiastic, not being afraid to pitch in with competitive tenders and tight schedules while maintaining high standards of design. They remind me somewhat of the Covell Matthews Wheatley Partnership 10 years ago.

David Lee described his reasons and requirements for a CAD system:

"(1) Forum wished to cope with growth and expansion while staying relatively small and avoiding the need to hire and fire as the workload varied.

(2) A 'workhorse' was required to produce presentation and working drawings fast and with accuracy.

(3) Microsystems were not considered powerful enough and might waste time in 'dabbling'.

(4) 3-D was not an essential feature of the system and would add unnecessary complication initially.

(5) It was important that the system was easy to use and would be quickly productive.

(6) That the system should come from a supplier that would not go bust."

This naturally led to an examination of two main systems in detail: GDS and CalComp (now owned by Lockheed), and at the end of the day the decision to buy CalComp was largely based on which company was the more responsive and offered the best "deal". Forum budgeted £60,000, for which they required a working

system. CalComp were prepared to accommodate them and carry out training within this sum and so got the order in April this year.

Since taking on a CalComp System 25 600 Series workstation (with twin monoscreens; 12-inch for text, 20-inch for graphics, joystick, 85MB disk drive, minicomputer and 1043 A0 plotter, all manufactured by CalComp), Forum are delighted with their decision and found in Stephen Pennington (a senior architect in the practice) somebody whose previous experience of micros enabled him to quickly grasp the inner workings of the system — especially some of the more rarified aspects of the UNIX operating system which CalComp uses. Both Lee and Pennington were trained at CalComp's HQ in Braeknell. Lee learnt the system both out of interest, but also, as a partner, he recognised the value of continuity. His knowledge of the

Wesley Methodist Church, Cambridge.

system, he hopes, will overcome potential difficulties arising from future staff changes.

Forum are pleased with CalComp's response and helpfulness to date in establishing the system in use. I was impressed how far they had got in six months or less, which shows how easy a system it must be to learn. When I visited, a third architect (trained in-house) was busy working up a further scheme using the system.

The first scheme they used the computer for was a simple retail warehouse for Comet, with lots of repetition and little complexity: a good move. Forum have been lucky in having keen and dedicated staff who have worked a considerable number of extra hours to develop expertise without asking for overtime. I have not personally been that enthusiastic about 2-D draughting since hand draughting is so efficient and even enjoyable. Much of this was due to the excellent "pan & zoom" that has been such a feature of the possible to hold sections, plots the joystick controlling a fluid movement facilitated by what must be a very fast processor.

The mono 20-inch monitor has excellent resolution, and it is possible to hold section, plans and elevations on screen simultaneously without noticeable loss of speed, using the plan and sections to generate elevations and vice versa, with the ability to zoom in on details. Forum would like to have colour to differentiate the many "layers" on each drawing, but find the mono screen quite acceptable, particularly since colour screens have more flicker and glare. The net result is the ability to draw just like on a drawing board but faster and with far greater accuracy and control.

CalComp "thinks" in terms of isolated drawings generated by reference to a component library. In this it is not far different from GDS or even Autocad. The system allows the generation of "macro" commands, some provided by CalComp, others which can be written by the user. These are very powerful and for instance enable the filling in of the title panel to control the filing of the drawing. This is brilliant application software, because it mirrors the way architects are used to defining and recording drawings.

The title panel itself becomes the controlling feature of the

drawing register. Other means control the use of fonts and text sizes, drawing line sizes, colours (on the plotter) etc, which allow the generation of an identifiable "house-style" beloved of partners. Much of Pennington's work to date has been in setting up these macros which are accessed using a standard tablet menu on a digitiser. The main difficulty has been the lack of adequate documentation on the Unix system.

Lee described that clients on the whole are pleased to find their buildings "on computer" and associated with high technology. Especially they enjoy the benefits of fast feedback. Lee recounted one instance where schemes were prepared in the morning for an extension to a post office, taken to the client the afternoon, who wanted various features of the floor schemes to be incorporated as a fifth, which was generated within a couple of hours and "faxed" through to the client the same evening!

A weakness of the system or any such system, is still at the plotting end. Plotters are still reliable now — but do need attention, and are really a somewhat anachronistic part of any CAD system since electronic information is easily converted by means of intermediate technology mechanisms. However, the time for cheap all-electrostatic or laser plotters is still some way off and colour is even more expensive. For instance CalComp do a rather nice one for about £40,000! In the meantime Forum's architects admit that they still spend too much time standing and watching the plotter draw, which seems to hold endless fascination for the first year, and then is taken for granted.

The illustration shows a scheme for the extension to the Wesleyan Church in Cambridge. This shows how far Forum have got in a few months. These elevations took a couple of days to enter and use many 2-D facilities very well, for instance the drawing of the circular windows, which were generated by drawing a quarter and mirroring about the X and Y axes. The Lefraser people and trees also come with the system (there is even Marilyn Monroe with her skirt blowing up), though these take up production quantities of memory and the trees, in particular, take some time to draw leaf by leaf. The

detail is such on these drawings that it helps to remove the drawing from looking too mechanical, a particular problem with the micro-based software. Forum still find it helps to hand finish elevations as well as make small amendments to negatives.

Text handling on CalComp is quite sophisticated, the use of a separate text screen with a word processing function helps to get over the problem of dealing with graphic text, and there is no problem with upper and lower case letters. In a word processor letters and numbers are discrete items: as graphics they are composed of lines and curves. To avoid the difficulty of editing actual graphic text, the trick CalComp uses is to make the software convert from the word processor to the graphics text and vice versa, which makes editing of notes etc far easier.

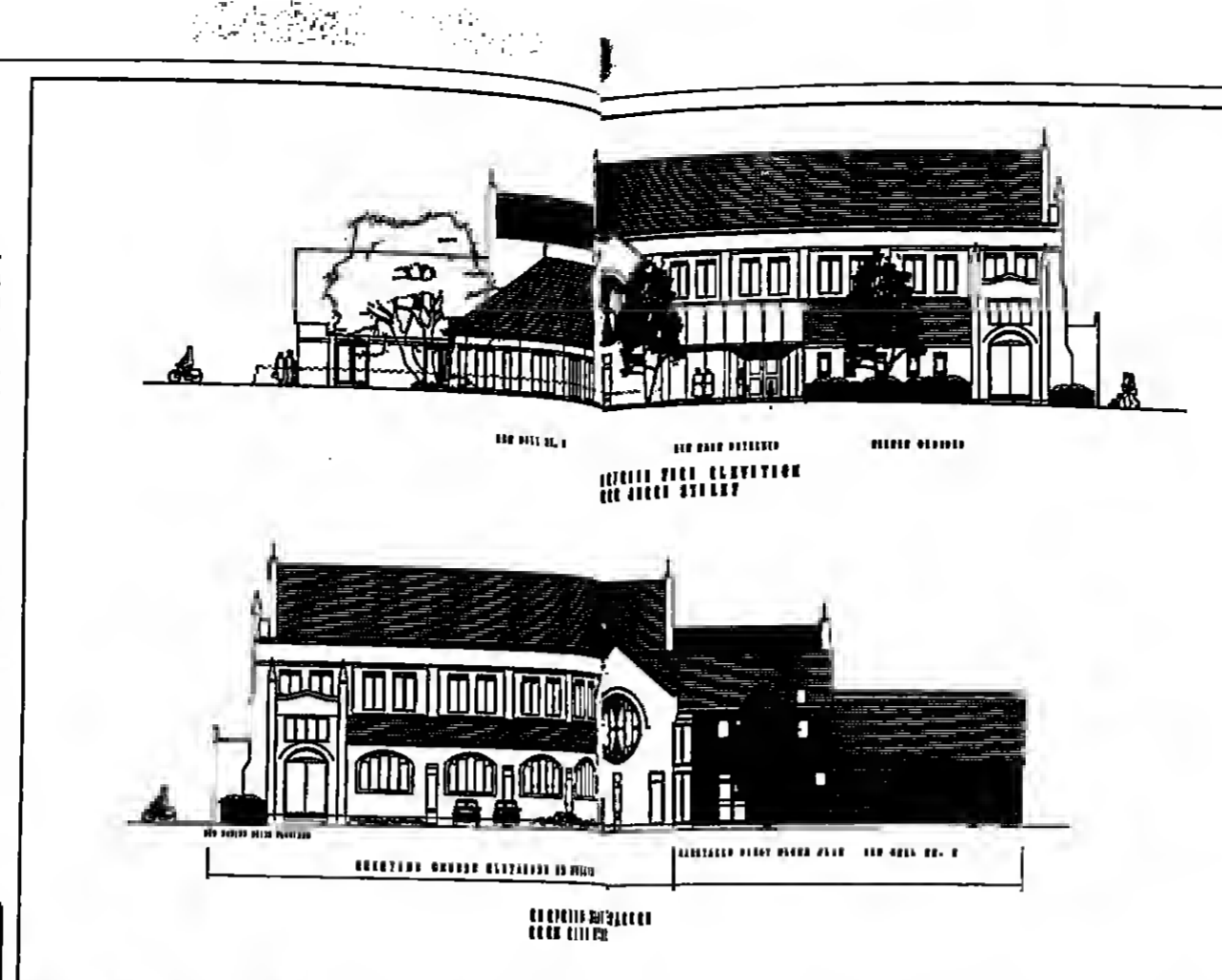
Nevertheless, Forum are tending to do what most people are learning to do now, whether they have CAD or not; that is to type up spec notes on a word processor, print out or photocopy on to transparencies and then stick these on to the negatives. The benefit of this is not to tie up £60,000 worth of hardware doing simple typing operations.

One feature of the system that Lee likes is the relatively low cost

of hardware and software maintenance — £500 per month. This compares favourably with some of the other big systems. Forum know that they will soon need another workstation which they hope to add for £15-18,000. I was amused to find that, despite the high cost of the equipment, there is some reluctance to spend a few hundred pounds on an air-conditioning unit to keep it all cool: perhaps they have done so by now, as it is necessary.

The CalComp system and Forum Architects have settled down well together, and evidence shows that it is already beginning to pay dividends, with clients interested in Forum because they are using the system. The speed with which they have become acclimatised must be due in large part to the dedication and enthusiasm of their staff and the direct involvement of a partner in the learning process.

Lee hopes also that work will come as overflow from other members of the user group, which at approximately 30 users is quite small but varied, including manufacturers (eg Dunlop), M&E engineers and local authorities. It will be interesting to see whether Forum can stay small by using computers, as is their intention. I would not be surprised if they carried on growing.



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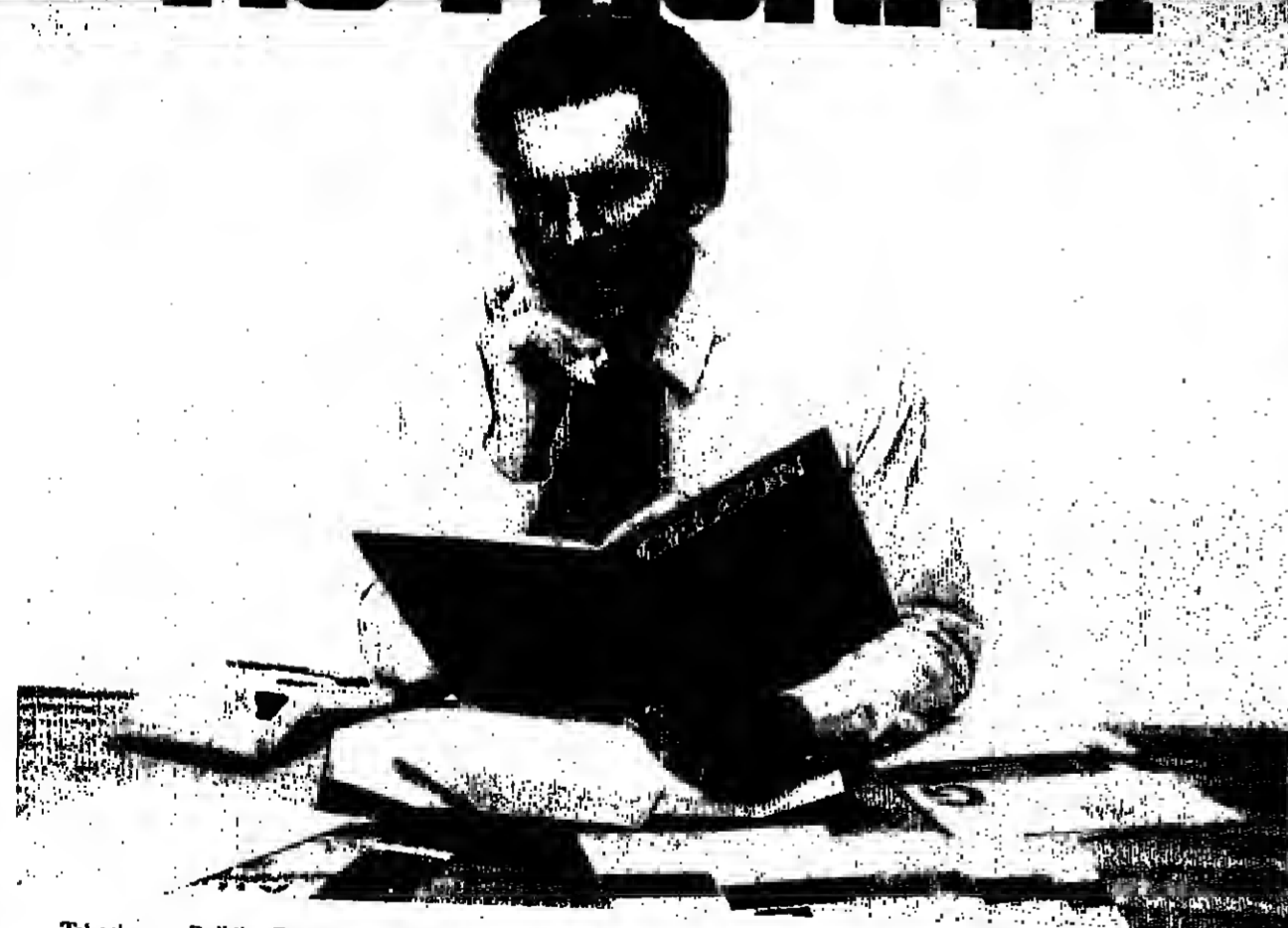
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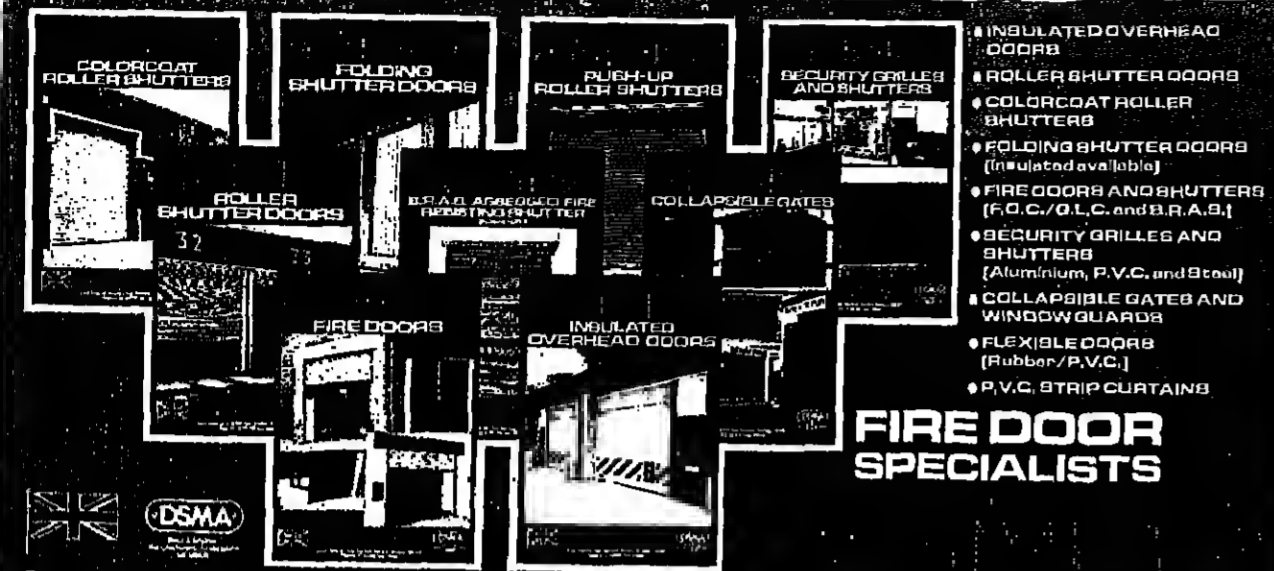
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# Sow's ear to a silk purse

**Chris Higgins of Plincke Leaman & Browning relates his practice's experiences in setting up a computerised office management system.**

THIS is the story of Plincke Leaman & Browning's search for an office management system and how it led them to an unlikely conclusion.

On the way they met some odd experiences, some frustrating, some hilarious.

PL&B are a practice of some 28 staff based in Winchester, Hampshire. Although they are primarily consultants in architecture, they also run a project management service and two of the partners are qualified in other disciplines; one being a quantity surveyor, the other a construction manager.

A few years ago the firm was expanding fast and the project management partners recognised the need to introduce a reliable office management system (probably computerised), to improve the efficiency and profitability of the firm. The needs were identified as follows:

- To know the real costs of running the firm.
- Which projects made profits or losses.

- Identifying loss-making early enough to remedy the problem.
- When fees were due.
- The instant calculation of work in progress whenever was required rather than the auditors arrive at the end of the financial year.

The partners also wanted means of knowing the implications of certain management decisions, such as how the review would affect overhead costs, or the effect of a professional indemnity premium when spread over the hourly rate for each member of the office.

So the aim was to find a system to provide all these answers at the push of a button to ensure the right management decisions.

The big questions for some one knowing almost nothing about computers were which system? and what hardware? The choice of computer system to the layman is like a maze.

PL&B initially got it all wrong. With so many systems to choose from, they opted for

## Computers

Apple III (because many architects seemed to favour the Apple), supplied by a local dealer for the convenience of after-sales service. Unfortunately, it was obsolete within six months and, although the subsequent Apple Macintoshes are no doubt very good, PL&B now suspect that many architects had chosen Apples because of their good design image and an excellent logo rather than for their specific performance. The upshot was that the local dealer was only able to supply a few basic spreadsheet sheets, and he went into liquidation shortly after the purchase.

But in starting to use any system at all, PL&B began to become computer literate and learn from their initial mistakes.

A standard word-processing package was acquired at the same time which was very successful, but it was soon recognised that it would be even more efficient on more powerful hardware.

An IBM PCXT was purchased and dedicated to word-processing. Although supplied by a different dealer, the industry seems fraught with insecurity and he too went into liquidation soon afterwards. However, this was clearly the right package to cope with the needs of the practice, they still needed the ideal management programme to help control their performance, their cash flow, and analyse their efficiency and profitability.

At that time it was still a difficult dilemma — they could buy a standard package but would it really do what they

wanted? The alternative was a purpose-written set of software, but the cost would be phenomenal (and even then with no guarantee of eventual performance).

Still learning, PL&B went to various seminars and demonstrations looking at all the ready-made systems on the market. It was difficult here to judge how many slick salesmen were better than their product, or how many clever computer boffins might have had the right answer.

Clive Houghton, one of PL&B's management partners, looked at every system he could find on the market. After several months he concluded that a system called Prophet came closest to our brief. It was being developed by Nigel Charlesworth, a computer programmer who had previously practised as an architect. He had the bones of a very good system, but had neither the resources nor the presentation to complete the development or market it professionally. Despite being slightly chaotic, he was clearly a clever programmer and the decision was made to become one of his first customers.

Although PL&B were pleased with Prophet, it clearly needed a lot more work to perfect it, and it was not long before Houghton and Charlesworth had fallen into a working partnership in which PL&B became Charlesworth's guinea pig, providing user feedback during the development trial period. Houghton analysed any weaknesses in the system and Charlesworth responded by rewriting the programme.

If they had known the sheer effort and time involved, they might never have started.

Almost two years later the redevelopment of Prophet had been refined to a point where PL&B were delighted with it. It had been created to suit the demanding needs of a thriving medium-size practice; it was rewritten in a powerful computer language called Pascal, and capable of running on each of the commonly adopted computer operating systems, MS-DOS or CPM. In theory it would now be possible to run Prophet on almost any contemporary computer, although it was really aimed for IBM, or IBM compatible; subject only to the hardware having the capacity to operate the programme (a minimum of 256k ram internal memory plus a 10 megabyte hard disk).

There was now great satisfaction at this achievement, as the system was thought to be the most powerful and comprehensive on the market, but the time and costs incurred in development had been enormous. Over this time the working relationship between PL&B and Charlesworth had grown into the formation of a new company intended to support him in launching and marketing the new improved Prophet system and to give PL&B, who had backed it, some security.

The system was now working well and had the benefit of some two years of development trials behind it, but neither PL&B or Charlesworth had any marketing experience. At about this time Stephen Alsford, a univer-

sity friend of Charlesworth who had been a marketing director of a multi-national company expressed an interest in the consortium was formed to fund and launch the new company.

The partners of PL&B offered a prize within the firm for anyone suggesting the best name for the new company; only to be a little embarrassed when the winning suggestion came from one of the partners, John Browning, who proposed The Silk Purse Company.

Looking back on the whole experience, PL&B are certain that every practice could benefit from a computerised office management system, and their advice to other like-minded firms is as follows:

- Carry out your market research carefully.
- Assess what you need before you go too far.
- Avoid over-sophistication or too many changes.
- Be sure that the system will serve you and your practice won't become a slave to the computer.
- Consider the suitability of the software and subsequent user support.
- Ensure that hardware is fully compatible with software.
- If you don't already use word processing, this could usefully be considered at the same time.
- It takes time to get it right, but the commitment will pay dividends.

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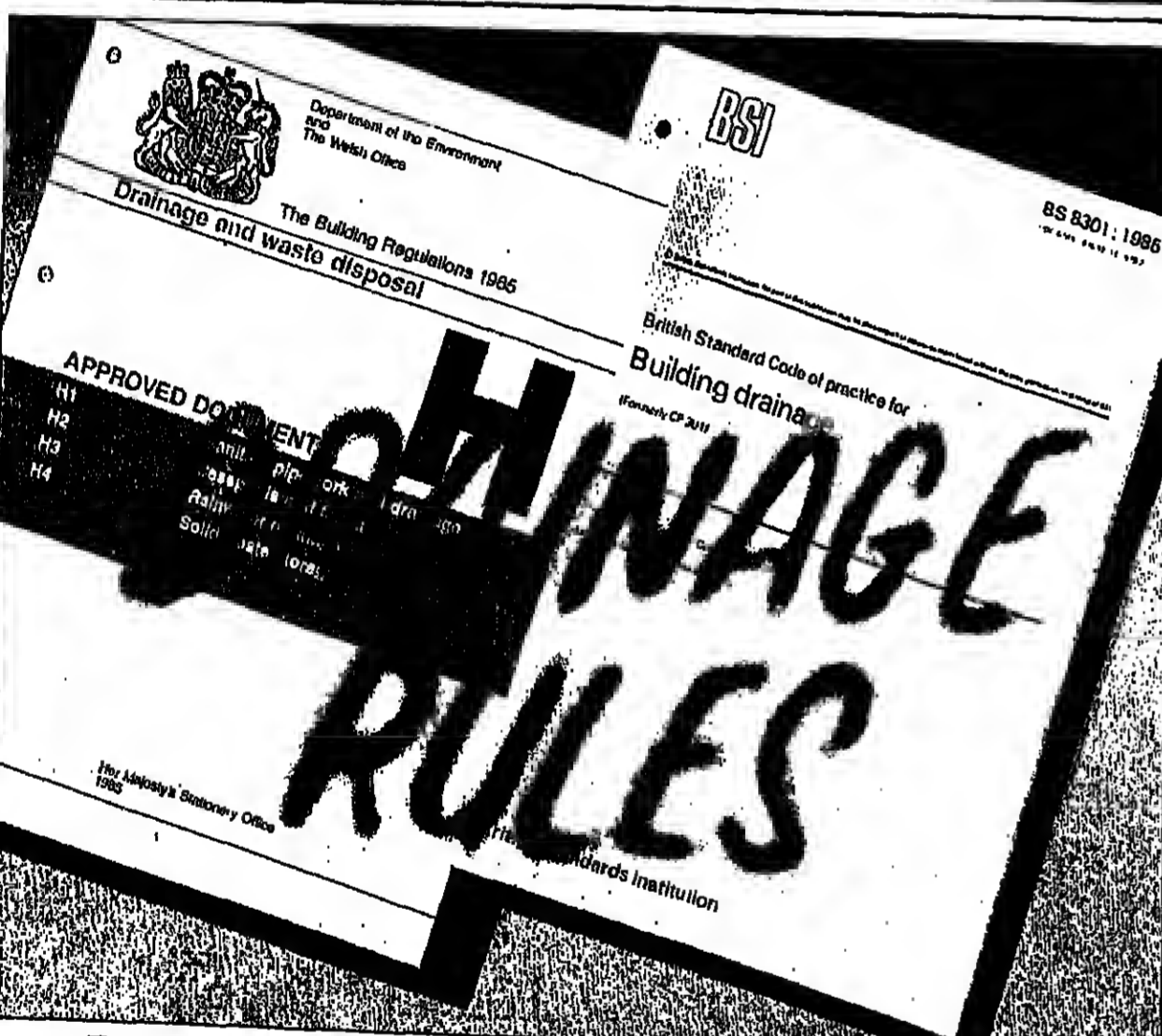
Its unique, easy-to-use Menuing system has been described by experts as 'Remarkable', 'intuitive' and 'perhaps the best on any CAD'.

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# THE HEPWORTH GUIDE TO GOOD DRAINAGE PRACTICE

Hepworth have translated the 1985 Building Regulations and application of the drainage products that are used on more than half of the UK's construction projects.

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Address \_\_\_\_\_

Return to:  
The Hepworth Iron Co. Ltd.,  
Hazelhead, Stockbridge,  
Sheffield S30 5HQ,  
or telephone 0226 763561.

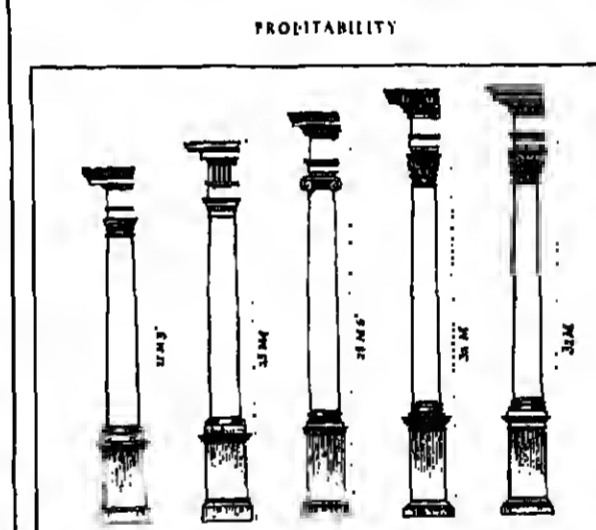
BD 11/86



What are your true overhead costs? ... What is your overhead cost per productive hour and for each grade of staff? ... Do you monitor & control overhead costs? ... How will your overheads be affected by ... a new review? ... changes in staff? ... or a new pension plan? ...

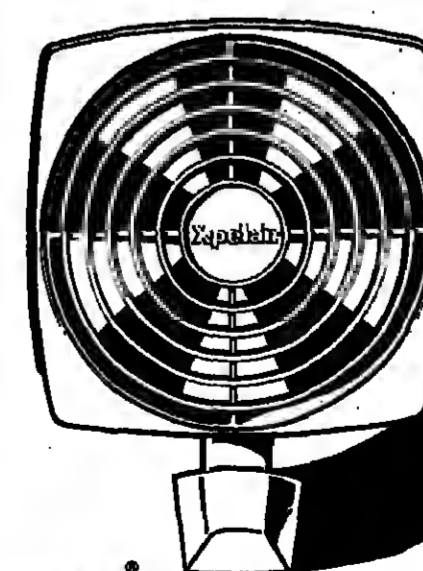


How precisely can you calculate your hourly costs? ... How carefully do you set your timecharge rates? ... Can you substantiate them if challenged? ... Are these rates profitable for all grades of staff? ... What percentage of your time is productive? ...



Can you calculate the value of work partly done but not yet invoiced? ... What is your profit or loss on each job? ... at any time? ... Can you take action before it is too late? ... Would you like to be able to assess your work in progress instantly whenever you need it? ...

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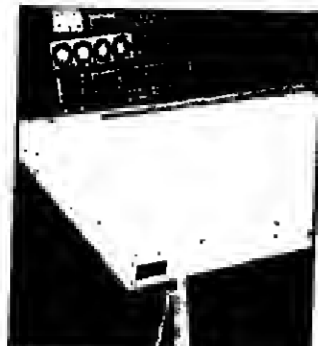
## New products

Compiled by Herald Hudson

### Back-lit draughting

**SUITABLE** for graphic, photographic applications, a range of backlit draughting tables has been introduced by GM Technical Services. In sizes from A0 to A4 — the two larger sizes available mounted on stands — these draughting tables include a green filter to ease eye strain and a dimmer control adjusts the back lighting levels. There is provision for the fitting of parallel-motion draughting machines.

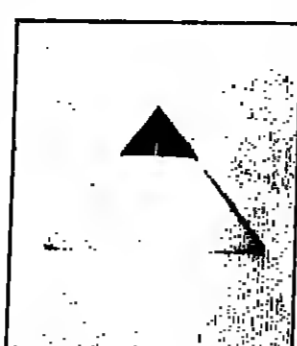
Enter 100 ON EXPRESS ENQUIRY CARD



### Glass luminaires

MARLIN has been appointed the exclusive UK distributor for Glashütte Limburg luminaires. Limburg is well-known for its high-quality glassware and this is reflected in the fittings which are now available from Marlin. In all some 1,300 varieties of fittings are included — uplighters, downlighters, pendants, ceiling lights, wall lights and table lamps. Six different types of glass are used and a number of different metals, including die-cast brass, die-cast aluminium, zinc and bronze.

Enter 101 ON EXPRESS ENQUIRY CARD



### Friction hinges

LARGER, heavier windows are made possible if the robust Defender friction hinges from SecurStyle are used. Smooth operation, accurate location, a weatherproof fit and an airtight seal — these are the qualities claimed for this in-house designed and built device. Off-the-shelf delivery is promised. SecurStyle has recently become a firm of assessed capability under the BS1 quality assurance scheme.

Enter 102 ON EXPRESS ENQUIRY CARD



## New products

### Exterior fillers

A TWO-year exposure test carried out by ICI's research and development department showed that its WeatherShield Stopper is the most durable. Holes and channels were cut, filled using various proprietary resins of filler, rubbed down and given a coat of gloss paint. ICI claims that the success of its product is due to an extruder based on silica micro-spheres and a special resin which allows the stopper to expand or contract with the moisture content of timber.

Enter 115 ON EXPRESS ENQUIRY CARD



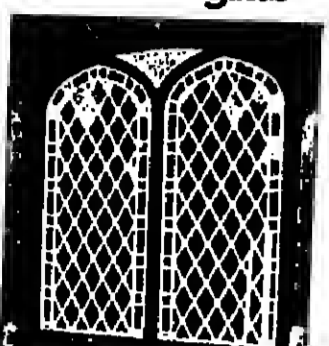
### Wall tiles

HAND-PAINTED tiles from a factory in Burgundy, France are the latest additions to Tile Mail's London outlets. They are the sole UK stockist for the original tiles which have plain white or coloured options. The picture tiles depict animals, fruit, flowers, Pacific islands and French kitchen scenes.

Enter 116 ON EXPRESS ENQUIRY CARD



### Leaded lights



NORTH Western Lead offer to replace the appearance of ancient leaded lights. This company manufactures Decra-Lead, brilliant white self-adhesive lead strips which it sticks to both sides of the outer pane of a sealed double-glazed unit, thereby replacing the appearance of the old window, but adding the benefits of double-glazing. The white UV-cured polyester finish is said not to require painting for many years.

Enter 103 ON EXPRESS ENQUIRY CARD

### Roofing texture



TARC Tiles claims that its classic single top concrete roof tile, with its mixture of angular and curved profiling, imparts to pitched roofs a texture which is quite distinctive. Most such tiles have curved profiles, producing roofs reminiscent of ones covered with traditional tile patterns, such as pan tiles and Roman and Spanish tiles. Others have very square profiles. Tarc Classic tiles lie somewhere between the two extremes.

Enter 104 ON EXPRESS ENQUIRY CARD

### Water coolers



ROUND-THE-CLOCK cooled drinking water can be supplied by Maestro Water Coolers' duty coolers — the MAJ-1 and MAJ-20. These units deliver 10 deg C, every hour. Both are plumbed in and can be supplied with a filter arrangement if desired. They carry a 12-month warranty and are said to have been developed with long, trouble-free life in mind.

Enter 105 ON EXPRESS ENQUIRY CARD

### Sheltered security



TWO additions to the Best masterkey/removable core system are intended to make life easier for the elderly or handicapped. The Best key has an enlarged key-bow to make it easier to grip and is available right across the range. The Best S4 Union oval conversion cylinder features a 500mm turnbar. The turnbar is operated by pulling down rather than rotating which is often difficult for the elderly.

Enter 117 ON EXPRESS ENQUIRY CARD

### Resistant lighting



PRACTICAL and attractive, Cameo light fittings are available from Osram GEC in round or square models. The bodies and diffusers are both made from polycarbonate giving weather and vandal resistance. The illumination is provided by two energy-efficient 9W Osram fluorescent lamps. The square Cameo is available with two 11W Osram lamps, each running on separate ballasts.

Enter 118 ON EXPRESS ENQUIRY CARD

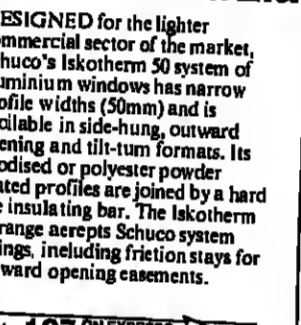
### Water level

ENABLING complicated levelling operations to be carried out by one man, the new water level from Akwamasta can be used to set pegs for foundation concrete, positioning shuttering, floor joists, wall plates etc, or setting out second-fix items. The operator can work around obstructions, transferring levels from one room to another. What is more, the Akwamasta is easy to carry, will withstand rough site use and has very little that can go wrong.

Enter 106 ON EXPRESS ENQUIRY CARD



### Aluminium windows



DESIGNED for the lighter commercial sector of the market, Schuco's Isotherm 50 system of aluminium windows has narrow profile widths (50mm) and is available in side-hung, outward opening and tilt-turn formats. Its anodised or polyester powder coated profiles are joined by a hard pvc insulating bar. The Isotherm 50 range accepts Schuco system fittings, including friction stays for outward opening casements.

Enter 107 ON EXPRESS ENQUIRY CARD

### Vinyl tiles

REPRESENTING the move Marley Floors has made into the medium-priced sector of the vinyl floor tile market, the new Cortina Designer range allows specifiers to create their own exclusive designs. These customised tiles combine six attractive, colourful designs. Because the pastel colour chip pattern is evenly distributed through the thickness of each tile, Cortina tiles retain their good looks throughout their life, even in heavily trafficked areas.

Enter 108 ON EXPRESS ENQUIRY CARD

### Lighting

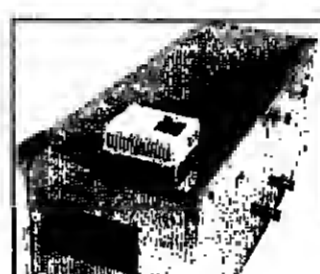
THE Manhattan is a wall-mount uplighter just released by Design Carvill Ltd of London. Finishing a combination of brass and chrome or satin black, the light is available with tungsten halogen bulb, GLS bulbs or with a GLS-in Fluorescent glass bulb. Design Carvill makes large range of lighting but specialise in designing and manufacturing uplighters.

Enter 109 ON EXPRESS ENQUIRY CARD

### Air conditioning

A NEW range of six air handling units is being manufactured by Conair Engineering. The Kennard Compact models are made of 25mm-thick insulated panels mounted in an extruded aluminium frame and contain a variable speed fan. Providing heating, cooling and filtration the units are capable of handling air volumes between 0.1 and 2.4 m/sec.

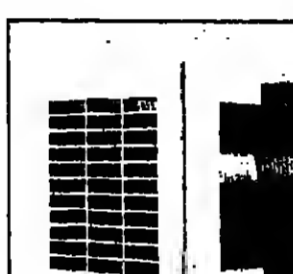
Enter 119 ON EXPRESS ENQUIRY CARD



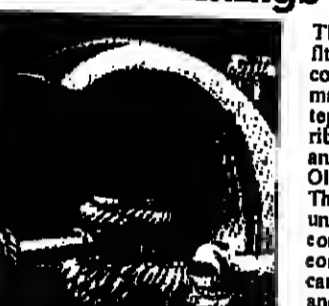
### Ventilation

MORE efficient extraction of condensation and odours is given by the new Slimline fans from Aidile. Designed to discharge air directly through an outside wall, the fans incorporate a mixed flow impeller to cope with all predicted demands and a magnetically retained flap to prevent draughts blowing back into the room. The basic SLF model is operated by a pull cord but the SLF-T can be switched on with the room light.

Enter 120 ON EXPRESS ENQUIRY CARD



### Bathroom fittings



THREE new suites of bathroom fittings have been added to the collection of bathroom accessories made by Regency. Delphic mixer taps are distinguished by rope or ribbed patterns on the level handles and pop-up knob while the Olympic suite has curved handles. The Pavilion taps are operated by unusually shaped handwheels and contrast with a classically contoured spout. All three suites can be bought in chrome or gold and polished or brushed nickel.

Enter 110 ON EXPRESS ENQUIRY CARD

### Office furniture



THIS brightly coloured storage unit and combined work surface is one of a new range from Sheraton. Designs Ltd. The moulded pedestal unit can be ordered with two or four drawers and a suspended filing facility, casters are optional. It comes in hi-gloss or matt coloured finishes. It is possible to lock a line of the pedestals together.

Enter 111 ON EXPRESS ENQUIRY CARD

### Lightline



A VERSATILE new tubular fluorescent lighting system has been launched by Martin Lighting Ltd. The two models, Lightline I and II, can be installed in any pattern to live up to a ceiling. They are available in matt white or black and a colour service range. White steel or black plastic snap-in louvres and clear plastic covers are offered for Lightline I as well as track spotlight options. Lightline II has a new, more visible reflector profile.

Enter 112 ON EXPRESS ENQUIRY CARD

If you would like further information concerning the products on these pages, please fill in and return the pre-paid reader enquiry card.

### Washrooms



KEEPING washrooms clean and hygienic is the aim for a range of products from Kestrel Services. The Clear soap dispenser will deliver individual leaf of soap as required which dissolve completely and instantly with water to eliminate scum from the wash basin. The wall-mounted unit has a chrome-plated outer case bearing a plate with clear user instructions. It is supported in the package by a combined hot air drier/paper towel dispenser.

Enter 121 ON EXPRESS ENQUIRY CARD

### Roofing and cladding



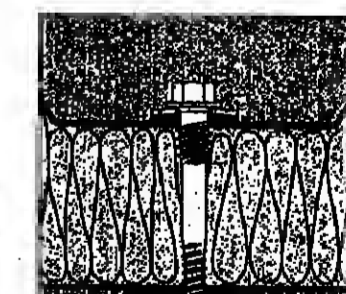
ROOFING and cladding materials from Eternit TAC are detailed in a new booklet. Panoramic colour photographs of the products in use are augmented by inset pictures of the ranges. Duracem and Eternit 2000 asbestos-free formulations are included in the text on slates and the company's profiled sheeting and rainwater goods are also shown.

Enter 127 ON EXPRESS ENQUIRY CARD

### Fastenings

DATA sheets for four of their new fastenings have been produced by SFS Städlar to help the specifier decide on the correct product for the task. The sheets concern the Liner panel fastening system; the Solo Mark II self-drilling and self-tapping fasteners; the SCS fibre cement fasteners and the recently developed SDC composite fastener which comes in seven lengths and incorporates a threaded section of shaft to avoid overtightening.

Enter 128 ON EXPRESS ENQUIRY CARD



### Window fittings



ONE model of handle now fits the entire range of Soluco upvc windows and therefore brings savings in manufacturing and stock holding requirements. The mechanism is integral with the handle casing so avoiding machining of the frame. The handle and the rest of the universal fittings are illustrated in a leaflet available from the firm. The leaflet is entitled *From Schuco: The fittings of the future*.

Enter 129 ON EXPRESS ENQUIRY CARD

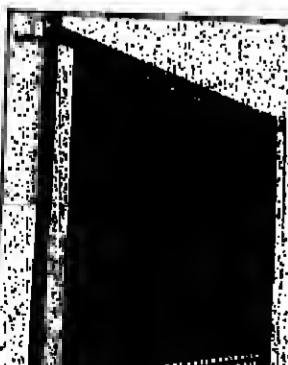
### Office styling

THE announcement of a new service from Habitat Contracts could make setting up a new business and furnishing an office easier. They claim to be able to deliver one of their Officepacks to the customer within 14 days of a confirmed order. The package can include desks, tables, chairs, storage units and lighting equipment.

Enter 113 ON EXPRESS ENQUIRY CARD



### Doors



DESIGNED for high use cycle applications such as factory compartments this variable speed door from Energy Doors Ltd is operated by a push button, radio control, radar or induction loops. The polyester/neoprene curtain will be raised and lowered in a pre-timed cycle to cut heat loss and the safety feature of a pneumatic pressure pad built into the bottom obviates the risk of operatives being caught.

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$$5 \times \text{!} (\text{£} \frac{1}{4}) = 2020 = \frac{16+28(+38)}{W}$$

### PROPOSITION ONE

- A Let the amazing 2D compact fluorescent lamp be equal to the life of five ordinary light bulbs.
- B Let it consume a quarter of the electricity.
- C Let it save the money your clients save, every year.

2D

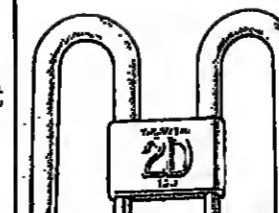
D Multiply by the number of lamps your client is currently using.

E Prove that 2D equals an extremely profitable investment.

Q.E.D.

### PROPOSITION TWO

- A Let 2D equal greater choice.
- B Let the range cover 16 watt and 28 watt versions.
- C Add to the range the new 38 watt lamp.
- D Let the cool, slim shape result in a vast array of compact, attractive shade and luminaire designs.



E Prove that 2D is ideal for a wide variety of applications.

Better still, phone Dana Taylor on 01-963 6363 and we'll send you a free cost saving calculator to work out exactly how much your client's will save and a free brochure to select the 2D luminaire to meet each client's specific requirements.

Q.E.D.

THORN EMI 2D

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## Dateline

(Items for consideration must be received 10 days prior to publication)

## This week

**Today**  
Guided tour of Lloyd's Building  
organised by the Camden Society  
of Architects.  
Venue: Lloyd's building, 2.30pm.  
Tickets: Chris Firsh, 01-485 0991.

**Saturday**  
The Scottish Interior conference  
organised by the architectural  
Heritage Society of Scotland and  
Edinburgh University extra-mural  
department.  
Venue: Lecture Theatre A,  
Edinburgh University, Edinburgh.  
Cost: Conference tickets £26,  
students £4, lunch £4.50.  
Details: Department of extra-  
mural studies, University of  
Edinburgh, 11 Buccleuch Place,  
Edinburgh EH1 9JL.

**Sunday**  
Wednesday  
Developing management skills II,  
course organised by the College of  
Estate Management.  
Venue: Uxbridge Training &  
Conference Centre, Crysers Hill,  
High Wycombe, Bucks.  
Cost: £225 (inclusive of  
accommodation, meals and  
documentation).  
Details: Mark Inlow, (0734)  
861101.

**Tuesday**  
The fence, meeting place for young

architects to present and discuss  
their work and views. Five  
speakers on various topics  
including landscape and interior  
design.  
Venue: SIAD room, above the  
ICA, Nash House, 12 Carlton  
House Terrace, London SW1  
5AH.  
Details: 01-703 1578.

**Tuesday**  
Architecture of light and sound,  
lecture by Professor Derek Walker.  
Venue: Fine Arts lecture theatre,  
University of Newcastle-upon-  
Tyne.  
Details: Peter Willis, School of  
Architecture, University of  
Newcastle-upon-Tyne.

**Wednesday**  
3D CAD conference, its effect on  
designers, design organisations and  
design, on exhibition organised by  
Teesside Polytechnic computer-  
aided design unit.  
Venue: Teesside Polytechnic,  
Middlesbrough, Cleveland TS1  
3BA.  
Details: Tel: 0642 218121 (ext  
4137).

**Wednesday**  
Faults and failures, seminar  
organised by the Association of  
Building Component  
Manufacturers.  
Venue: RICS Westminster Centre,  
12 Great George Street, Parliament

**Square, London SW1, 10am-4pm.**  
Cost: A&A members £75 plus  
VAT, non-members £85 plus VAT.  
Details: ABCM, 01-580 9083.

**Thursday**  
The hand that draws, lecture by  
Prue Bramwell-Davies.  
Venue: White Box lecture theatre,  
School of Architecture, Hoe  
Centre, Notte Street, Plymouth,  
Devon PL1 2AR.  
Details: 07521 264645.

**Thursday**  
The establishment of trees on  
difficult sites, lecture by Derek  
Potch of the Forestry Commission  
Research Establishment to the East  
Midlands Landscape Group.  
Venue: Lockington Hall,  
Kegworth, Derby, 7 for 7.30pm.  
Details: Phil Rech (05097) 272.

**Thursday**  
The return of the atrium, illustrated  
lecture by Richard Saxon, partner  
of DDP.  
Venue: Reynolds room, Royal  
Academy of Arts, Piccadilly,  
London W1, 6.15pm.  
Cost: £1.50.  
Details: DDP, 01-631 4733.

**Friday**  
Managing the office, the fourth in  
the series of one-day seminars,  
called "Practice Management",  
organised by Legal Studies &  
Services.

**Venue: London Press Centre, Shoe  
Lane, London EC4**  
Cost: £165 plus £24.75 VAT for  
one delegate.  
Details: Julia Wright 01-236 4080.

**Friday**  
BBC1's "Omnibus" uncovers  
new archive footage of Auguste  
Rodin.

**Until November 22**  
Sale of designer furniture and  
lighting.  
Venue: Aram Designs, 3 Kean  
Street, London WC2, Monday-  
Friday 9.30-5.30pm, Saturday  
10.30-4pm.  
Details: Paul Helmsley, 01-240  
3933.

**Coming soon**

**November 22**  
Legislation... against  
conservation? conference organised  
by the East of England branch of  
the Association of Conservation  
Officers.  
Venue: School of Pythagoras, St  
John's College, Cambridge.  
Cost: £6.  
Details: James Clifton, Wycombe  
District Council, 0494 261000 or  
John Preston, Cambridge County  
Council, (0223) 317616.

**November 22**  
The evolution of the 20th century, on



The Scottish Interior conference, see column one.

**Anglo-Soviet architectural forum**  
organised by the Society for  
Cultural Relations with the USSR.  
Venue: Polytechnic of Central  
London, Marybone Road,  
London NW1, 10.30am-4.30pm.  
Details: SCR, 320 Brixton Road,  
London SW9.

**November 22**  
Guided tour of Powell & Moya's  
Queen Elizabeth II Conference  
Centre organised by Camden  
Society of Architects.  
Venue: Queen Elizabeth II  
Conference Centre, 10.30am.  
Tickets: Rosalind Pilling, 01-485  
0991.

**November 24**  
Architect's forum, debate on the  
"New Architecture" exhibition  
with Norman Foster, Richard  
Rogers and James Stirling.  
Venue: Meet in the foyer of the  
Royal Academy, 6pm.  
Cost: £6.50 per person to DIA  
members and their guests, £7.50 to  
non-members.

**November 25**  
Inaugural lecture for the Eric Lyons  
memorial fund by Norman Foster.  
Venue: RIBA, 66 Portland Place,  
London W1, 6.15pm.  
Details: RIBA 01-580 5533.

**November 25**  
Getting further into Europe — the  
potential and the problems, an  
evening seminar organised by the  
British Standards Institution.  
Venue: BSI Conference Centre, 61  
Green Street, London W1, 6 for  
6.30pm.  
Cost: £5, £4.50 for members of BSI.  
Tickets: The Secretary, Education  
Section, BSI, 2 Park Street,  
London W1 2BS.

**November 25**  
Problem tutorial organised by the  
Building Research Establishment.  
Venue: Building Research  
Establishment, Garston, Herts.  
Cost: £65.  
Details: Patricia Rowley BRE,  
(0923) 674040 (ext 522).

**November 25**  
Architect's seminar on interior  
landscaping.  
Venue: The Building Centre, 26  
Store Street, London W1 9 3Q-4.45.  
Cost: £138.  
Details: Paul Innes, 31 Second  
Avenue, Frinton-on-Sea, Essex  
CO13 9ER. Tel (02556) 787755.

**November 25**  
Architecture versus interior design,  
lecture by Ewa Jiriena.  
Venue: Fine Arts Lecture Theatre,  
University of Newcastle-upon-  
Tyne.  
Details: Peter Willis, School of  
Architecture, University of  
Newcastle-upon-Tyne, 091-  
2328511.

**November 25**  
Expert evidence in valuation  
disputes and planning appeals,  
course organised by the College of  
Estate Management.  
Venue: Parkway Hotel, Leeds.  
Cost: £39.  
Details: Maureen Coleman, (0734)  
861101.

**November 25**  
Architect's Data by Ernst Neufert.  
Available for the first time in paper-  
back, this well-known design guide  
offers over 400 pages of building types.  
Price £19.45.

**26. Handbook for Clerk of Works (Third  
Edition)** by G.C. Department of  
Architecture and Civic Design. This  
Third Edition provides step-by-step  
guidance on the carrying out of all the  
duties of the Clerk of Works. Price  
£12.05.

**28. Handbook for Clerk of Works (Third  
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offers over 400 pages of building types.  
Price £19.45.

**November 26**  
How English is the English  
landscape garden? lecture by Sir  
Dixon Hunt.  
Venue: The Linnean Society, 100  
Burlington House, Piccadilly, Apt  
Details: 01-377 1732.

**November 26**  
New shops for old, conference  
organised by RIBA Services.  
Venue: RIBA, 66 Portland Place,  
London W1, 10am-4.30pm.  
Cost: £95.  
Details: Sheena Parsons, 01-580  
5533.

**November 27**  
Construction workload 87/88,  
conference organised by RIBA  
Services and Eternit TAC.  
Venue: RIBA, 66 Portland Place,  
London W1.  
Details: Charlotte Dale, 01-580  
5533.

**November 27**  
The hand that talks, lecture by  
David Linford.  
Venue: White Box Theatre, School  
of Architecture, Hoe Centre, Notte  
Street, Plymouth, Devon PL1  
2AR.  
Details: (0752) 264645.

**November 28**  
Thatching, seminar organised by  
the Thatching Advisory Service.  
Venue: Thatching Advisory  
Service, 29 Nine Mile Ride,  
Finchamstead, nr Wokingham,  
Berkshire, 9.30am-5.30pm.  
Cost: £65 plus VAT.  
Details: Tessa Blair, Thatching  
Advisory Service, 0734 734003.

**November 18-29**  
Sacred places, exhibition of  
watercolour paintings by architect  
Bernard Lamb.  
Venue: Judd Street Gallery, 99  
Judd Street, Bloomsbury, WC1 6  
8pm.  
Details: 01-920 8519 or 388 1988.

**Until November 23**  
Robin Wood: architectural  
drawings.  
Venue: Everyman Cinema, 100  
Bush Vale, Hampstead, NW3  
10am-12pm.

**Until November 20**  
Metalwork and Jewellery, by  
Alistair McCullum.  
Venue: Crafts Council shop at the  
Victoria & Albert Museum, South  
Kensington, London SW7.  
Details: 01-589 5070.

**Until November 25**  
Wellfront — exhibition of young  
people's work concerned with the  
visual relationship between  
buildings and water.  
Venue: RIBA, 66 Portland Place,  
London W1.  
Details: RIBA, 01-580 5533.

**Until December 12**  
Photographs of 18th century French  
and English gardens by Geoffrey  
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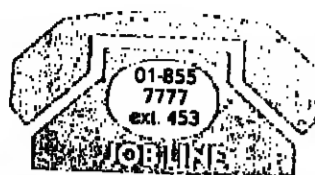
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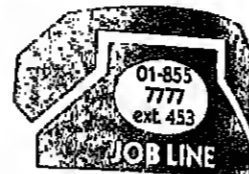
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It seems that a TECHNICIAN with more than 8 years experience falls into the above category!!! As a result we don't need to tell you that a number of vacancies exist with top practices, offering salaries between £11-£14,000 p.a., that should be checked out without hesitation.  
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Then this is your chance. This medium sized company who specialise in prestigious commercial work want you to take a key role in their expanding workload. Initially job running a £8 million office refurbishment will soon be in control of a range of challenging projects with well respected clients.  
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## LONDON BOROUGH OF SOUTHWARK HOUSING DEPARTMENT

## Southwark Needs Surveyors

Southwark Housing Surveyors need Surveyors or Architects who are capable of facing the challenges of the regeneration and maintenance of an inner city Borough's housing stock.

## Building Surveyors

SO2-PO1  
£13,999-£14,889 inclusive of LW (Ref BD/6/7593)  
Applicants should be either qualified surveyor/architects or be able to demonstrate part qualification with extensive experience. You must be capable of working on your own initiative on major projects and supervising staff.

## Surveyors

Scale 6-SO1  
£10,908-£13,666 inclusive of LW (Ref BD/6/7594)  
Applicants should be part qualified with relevant experience, capable of working on their own initiative with the minimum of supervision on major projects.

## Assistant Surveyors

Scale 4 or 5  
£8,706-£10,611 inclusive of LW (Ref BD/6/7595)  
Applicants may be those seeking to qualify, to which all necessary assistance will be given, or those with relevant experience. You will be required to run your own jobs and encouraged to play a leading part in major projects.

The Division which encourages a multi-disciplinary approach to its work has responsibility for a large rehabilitation, maintenance and improvement programme to the Council's 62,000 property housing stock.  
All these posts are demanding and challenging, requiring a flexible and innovative approach, and in return offer prospects for job satisfaction. The wide scale and scope of the work offers good career development opportunities to applicants working towards a professional qualification.

Southwark is an equal opportunity employer. Applications are welcome from candidates regardless of sex or ethnic origin and from registered disabled persons.

Telephone 01-701 5870 or 01-708 1954 (24 hour answering service) for an application form, or write on a postcard to: The Personnel Officer, London Borough of Southwark, 25 Commercial Way, London SE1 5 6DG.  
Please quote appropriate reference number and job title. Last date for receipt of completed Application Forms 5.12.86.

# APPOINTMENTS

## BTP

ARCHITECTS  
Architects & Technicians  
BRISTOL

BTP is a small, self-contained practice which enjoys the backing of the MWT Group. We operate from attractive offices overlooking parkland in the university area of Bristol and our workload is expanding at a very satisfactory rate. We need to recruit more young architects and technicians with design skills and some job running experience to whom we can guarantee pleasant working conditions, generous terms and job satisfaction.

Please telephone  
Bristol (0272) 277453  
or send your C.V. to  
BTP Architects  
3 Berkeley Square,  
Bristol BS8 1HL

### UNUSUAL OPPORTUNITY

Following the success of the Architecture Shop in Hampstead Garden Suburb, David Baker Architects are looking for an Architect with around 3 years post-qualification experience to help set up another Architecture Shop in West London. Applicants should live within 30 minutes drive of Ealing Common and have an enthusiasm for accessible architecture.

Please write to:  
David Baker RIBA, 5 Tyntis Road, London NE 20W  
Tel: 01-455 8388

### PERCY THOMAS PARTNERSHIP

QUALIFIED ARCHITECT  
with several years experience

QUALIFIED ARCHITECTURAL  
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also with several years experience

### NEWLY QUALIFIED ARCHITECT

To work on a variety of interesting commercial, health and refurbishment projects some of which are in conservation areas and require a sensitive appreciation of the existing urban fabric. These posts are for permanent staff and offer excellent career prospects. There is a lively and congenial working environment in modern air conditioned offices. Good salaries will be paid to applicants showing exceptional ability.

Please write to me quoting ref AI with samples of your recent work, an account of your aspirations and capabilities and a C.V.

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Percy Thomas Partnership  
Civic House, 156 Great Charles Street  
Birmingham B3 3HN  
Tel: 051 233 4474

County of  
Cleveland

PLANNING DEPARTMENT  
Re-advertisement

### TECHNICAL OFFICER (Environment)

CX123 £7,311-£10,164

A keen, enthusiastic Technical Officer is required to work in the Environment Group of the Development Division of the Planning Department.

The person appointed will be a member of a team of eleven responsible for the planning, design and implementation of a wide range of building refurbishment and environmental improvement projects throughout the County. This person appointed will have specialist responsibility towards the scheme of enhancement works relating to run-down industrial and commercial sites which the County Council, in co-operation with private landowners, is anxious to improve.

The position would be suitable for someone who has sound knowledge and experience of building construction and who has the ability to draw up schemes of improvement and supervise their implementation.

The appointment will be made within the salary range shown, according to qualifications and experience.

Assistance with removal and relocation expenses will be provided in approved cases. Temporary housing accommodation may also be available within the County area.

For an application form and further details please contact Greg Watson on Middlesbrough 248168, ext. 2422 or write to the County Planning Officer, Gurney House, Gurney Street, Middlesbrough, Cleveland TS1 1QT.

Closing date for applications is 29th November, 1986.

We are an equal opportunities employer. Job sharing arrangements will be considered and all applicants who have the support of the Disabled Resettlement Officer will be given an interview.

At the request of advertisers, readers are asked to refer to Building Design when replying to advertisements on this and other pages

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Applications in writing only to:

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Chief Architect

McColl  
64 WIGMORE STREET  
LONDON W1H 0DJ  
TEL: 01-2738250  
TELEPHONE 01-936 4788

### Brent Development Architects

### Practice Manager (Architect) — PO2B

The Construction Division of Brent Development is a multi-discipline design and property management service to the Council.

The professional sections work in Practice groups each headed by a Practice Manager and a vacancy now exists for an Architect to manage one of our Housing Practices.

We are looking for a professionally qualified person who has considerable senior level experience and can successfully undertake this leadership role. Working within tight programmes and budgets this post offers the challenge to maintain design standards and achieve targets, using and developing innovative techniques and approaches.

Opportunities exist to do work for voluntary sector clients, housing associations and other public bodies and there is an increasing new build workload.

Salary is in the range of £18,011 to £17,160 plus £1,163 LW and supplements.

Brent is an Equal Opportunity Employer. Applications are welcome from candidates irrespective of race, nationality, ethnic or national origin, age, marital status or gender and from lesbians and gay men and disabled persons. Job sharing welcome.

Application forms and job descriptions from the Personnel Division Room 1 Brent Town Hall Annex, Kings Drive, Wembley, Middx HA9 8BH returnable by 6th December 1986. Telephone 01-903 0371 (24 hour Answerphone service). Reference number D/10 must be quoted.

London Borough of  
**BRENT**

YORK ARCHITECTS  
require a young registered

### ARCHITECT

with an interest in old buildings. Must have drive and energy. Apply in writing with CV to Richard Cam-Archer, FAREY & MENNIM, 12 Minster Yard, York YO1 1HH

### LEEDS CITY COUNCIL DEPARTMENT OF PUBLIC WORKS ARCHITECTS SERVICES ARCHITECT/ARCHITECT'S ASSISTANT

REF 0107  
SO2 £11,804 to £12,297

Applications are invited from qualified Architects for this demanding post in a very busy architectural practice.

The successful applicant will be a member of a team of Architects and Technicians responsible to a Senior Principal Architect for a wide range of duties including:

— architectural work in the implementation of projects from inception to completion;

— the performance of duties as required by the relevant JCT form of contract (or such other form as the Council may adopt);

— working within the parameters of the Department's Financial Regulations and Standing Orders.

The successful candidate will be expected to demonstrate flexibility and a determination to ensure that the Division's high standards of work and performance are maintained.

The Division is a user of computer technology to aid design and drawing production. Experience and interest in this field, while not essential, would be useful.

All applications must be made on a Public Works application form. These are available, together with further details, by writing and enclosing a stamped addressed envelope, to the Director of Public Works, Personnel Section, Department of Public Works, Sweet Street, LEEDS LS1 1SD.

Closing date: 1st December, 1986.

"LEEDS IS AN EQUAL OPPORTUNITIES EMPLOYER"

POST SUITABLE FOR JOB SHARING

## LESSER DESIGN & BUILD

### Architects

### Architectural Technicians

We require experienced Architects and Architectural Technicians to join our Design & Build team to assist in meeting the increasing demand for expanding workload, which is often repeat business from well known national and international companies.

Applicants must be able to demonstrate a proven ability to produce and execute work, with the minimum of supervision. In both instances you should be capable of running your own project keeping to programmes and controlling costs.

We offer competitive salaries, excellent working conditions and growth opportunities for increased responsibility and advancement. Please write in the first instance stating full career details to date and indicating salary required, or telephone for an application form to:

Jacky Fleming (Mrs)  
Personnel Officer  
Lesser Design & Build Limited  
The Causeway, Teddington  
Middlesex TW11 0HW  
Tel: (01) 877 8768

## PREMISES MANAGER

This is a new position reporting direct to the Property Manager designed to control and be responsible for all property and material aspects of the Society's Branch Office network throughout the U.K. and Eire.

Candidates will require to possess considerable experience, maturity, and ability to work on own initiative and be able to control a programme of repairs/maintenance/upgrading/fitting-out, budgeting, controlling works direct and through appointed professional staff.

A salary in the order of £12,500/£13,000 is offered, plus fringe benefits including annual bonus, excellent contributory pension scheme, concessionary mortgage facilities and relocation expenses where appropriate.

Write with full details to:— Personnel Manager, Royal Liver Friendly Society, Royal Liver Building, Liverpool L3 1HT.

ROYAL LIVER

## ARCHITECT (Registered)

Salary: £01 — P03B, £10,569-£13,663

We require a highly motivated Architect with proven ability in design and project management for a key post within the Architects' Division. To join a team providing architectural services to an area of the County and, in co-operation with other building professionals, operates in a multi-professional team co-ordinating the Council's property management services.

We operate a CAD Bureau and, in consequence, we would be interested in candidates offering expertise in, and enthusiasm for using and developing computer-aided architecture for which training may be provided.

Car loan facilities and re-location expenses will be available, as appropriate. The post carries a Casual User car classification.

For further details and application form, please contact the department of Property Services, Central Services Section (Staff Management), PO Box 26, County Hall, PRESTON PR1 BRE. Telephone Preston 263271.

Closing date: 29th November 1986

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### BOROUGH OF DARTINGTON

RE-ADVERTISEMENT

### TEMPORARY ARCHITECT

SO1/POA £10,889-£12,894 (Spinal Point 28-38)

The Council is seeking to appoint a Temporary Architect for an initial period of six months to work on a variety of projects.

Applicants should be registered architects and have a minimum of three years post qualification experience.

Starting salary will depend upon experience. Job descriptions and application forms are available from the Head of Personnel Services, Town Hall, Dartington DL1 8QU, (Telephone (0328) 380881, extension 318) to whom they should be returned by Friday 28th November 1986.

For further details telephone Mr C B Davison, Assistant Borough Architect, on extension 111.

DARTINGTON BOROUGH COUNCIL IS AN EQUAL OPPORTUNITIES EMPLOYER

### HOUSING DEPARTMENT

## Building Surveyors & Technicians

Up to £12,000 pa

We are seeking a number of experienced Building Surveyors or technicians for a wide range of interesting and varied projects in the housing repairs and refurbishment field.

The Housing Departments Maintenance Division have identified a massive programme of major repairs and improvements to its large panel estates and traditional housing stock.

In addition to this the division is also responsible for day to day repairs, vacant properties, services and external decorations contracts. The Division is newly established and rapidly expanding in terms of budget and responsibility. Promotional prospects are therefore very good. Although a relevant technical or professional qualification is desirable, experience, ambition and enthusiasm are qualities high on our list.

Closing date: 6th December, 1986. Please quote ref. K8388.

For further details and an application form contact The Recruitment Officer, Personnel Department, Town Hall, Forest Road, London E17 4JF (Tel: 01-531 8899 — 24 hour answering service).

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EMPLOYER

Applicants are considered for their  
qualifications for the post regardless of  
disability, sex, race and marital status

Waltham  
Forest

# APPOINTMENTS

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EC4/W8 We have a Project Architect. Design Technicians to work on superstores. Choose a temp or a perm start NOW!	£18/25,000 We have vacancies for experienced on-site Technicians to work on superstores. Choose a temp or a perm start NOW!	£10,000 + We have vacancies for experienced on-site Technicians to work on superstores. Choose a temp or a perm start NOW!

Contact Bill Peacock in our London Office NOW!

SOUTH AND SOUTH-WEST 0703-223511

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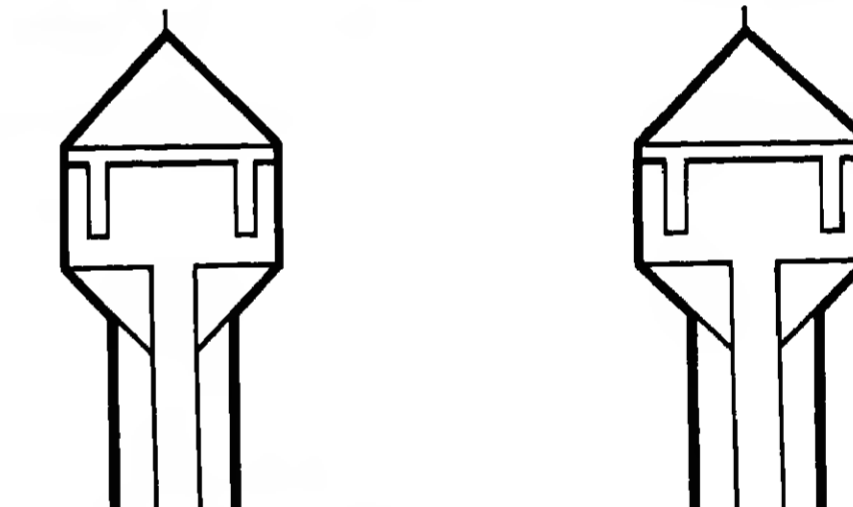
Contact Paul Hannan in our Southampton Office NOW!

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Personnel Consultants

## YOUNG ARCHITECT

with design flair, able to take responsibility for all aspects of a variety of fast moving projects for prestige clients throughout the UK and offering considerable career potential for someone with drive and initiative.

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"Ealing's Architectural Division seeks well motivated staff to assist with a very large programme of Housing, Social Services, Community and Education projects."

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"Release is offered to long suffering, misunderstood, underpaid geniuses."

We currently require:-

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ARCHITECTURAL/BUILDING SURVEYING ASSISTANTS  
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You're all welcome ..... write now or initially call 01-579 2424 and speak to Ian McKechnie, Assistant Borough Architect (Housing) Ext. 2510 or Michael Burrows, Assistant Borough Architect (Education, Social Services & General) on Ext. 2517. Closing date: 31st Dec.

Application forms obtainable from the Personnel Office, Room A/204, Town Hall Annexe, New Broadway, Ealing W5 2BY. Tel 01-840 1995 (24 hour service). Please quote appropriate reference. Ealing's new Council welcomes applications regardless of sex, race, ethnic origin, sexual orientation, disability or responsibility for dependants.

Ealing  
London Borough

# APPOINTMENTS

## ARCHITECTS & TECHNICIANS

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Required with proven  
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for a range of exciting  
housing and commercial  
projects.  
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## HEDLEY GREENTREE PARTNERSHIP

### ARCHITECTS & TECHNICIANS

We continue to expand and again are looking for additional staff to join us in our award winning offices on the South Coast. We need at least two more qualified Architects with substantial experience and the drive and enthusiasm to see multi-million pound projects through to completion.

The range of commissions includes extensive marina and leisure complexes, prestige office headquarters, housing and business parks.

We are also looking for reliable and experienced Technicians with at least 3 years, and more, experience.

These positions offer long term employment in a practice that is currently handling some of the most exciting projects on the South Coast.

You should write in the first instance, enclosing examples of your best work to:-

Peter F Alchurch RIBA Dip Arch (Hons)  
Hedley Greentree Partnership  
Fursell Farm, Wickham Road  
Fareham, Hants PO16 7JH

## PERCY THOMAS PARTNERSHIP

### YOUNG QUALIFIED ARCHITECT

To work on a variety of small projects in the health field, offering scope for someone with design ability and initiative to carry out jobs through from inception to completion.

This post is for a permanent member of staff and offers career prospects. There is a lively working environment in a modern air conditioned office. A good salary will be paid to the applicant showing exceptional ability.

Please write to me quoting Ref A2 with samples of recent work in account of your aspirations and capabilities and a C.V.

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Percy Thomas Partnership  
Civic House, 156 Great Charles Street  
Birmingham B3 3HN  
Tel: 021 233 4474

### FARMER AND DARK

have openings for a

### SENIOR ARCHITECT

with experience in industrial architecture and  
TECHNICIANS  
with a minimum of four years experience.

Please write with CV to Farmer and Dark  
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### DESIGN ARCHITECTS ASSISTANT ARCHITECTS

The practice has a number of new projects in the London area and is seeking staff with 3-5 years experience to work on schemes from concept design through to working drawings.

### INTERIOR DESIGNERS

A Designer with at least 10 years of varied experience of high quality work is required for the interior design section of the office.

Projects currently being undertaken include hotels and offices, supermarkets, higher educational buildings and refurbishment.

Please apply in writing, enclosing a CV to:

Liz Sanders  
John S Bonington Partnership,  
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## MALLA ARCHITECTURAL VACANCIES

QUALIFIED ARCHITECTS — WOKING  
Industrial/Commercial projects £18K+Car

QUALIFIED ARCHITECTS — OARTFORD  
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SENIOR TECHNICIANS — FULHAM  
Historic buildings experience £8-10K

QUALIFIED ARCHITECTS — SW8  
Various commercial projects including refurbs £15-18K

These are just a small cross-section of our current vacancies. We always require qualified architects and experienced technicians. Call Mike Shaheen to discuss your prospects for the New Year.

Malla Architectural Appointments  
334 Euston Road, London NW1 3BG  
Tel: 01-387 1043 Fax: 387 8312

David Wilson Homes (a member of the A H Wilson Group) have the following vacancy:-

## ARCHITECTURAL TECHNICIAN

Applications are invited for the above position in the Design Department situated at our Head Office in Lutetia.

The successful applicant will be involved in the preparation of estate layouts, feasibility studies and tend purchase schemes together with other aspects of work associated with a large developer.

Applicants will be aged 25-35 years, qualified to HTEC and have an applied knowledge of housing layouts.

This is an exceptional opportunity to join a progressive and expanding company providing "in-house" design and engineering support.

For further details please write enclosing a current C.V. to:

Mrs L Killick, Personnel  
Administrator, A H Wilson  
Group Limited, Lakeside Road,  
Lutetia, Lutetia-shire



Agencies need not apply

## MANAGING DIRECTOR ARCHITECTURE AND INTERIORS

Conran Design Group is one of the leading design consultancies in Europe with over two hundred employees operating from studios in London and Paris.

The Architecture and Interiors Division comprises a team of forty architects, designers and other specialist staff working on a wide range of design projects including airports, shopping centres, retail chains and leisure complexes.

Due to the impending retirement of the present Managing Director we want to appoint a highly qualified executive to manage this important division and join the senior board of the company.

The successful applicant will be a strong leader with a sound knowledge of architecture and design. Experience in the management of major projects and in all aspects of client communication are essential and candidates must also possess well developed personnel, organisational and administrative skills. Salary and other company benefits will be commensurate with the importance of this appointment.

Please write with a full CV to Peter James, Chief Executive, Conran Design Group, The Heath Building, 196 Tottenham Court Road, London W1P 9LD. Applications are required by 28 November 1986.



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## CHIVEDEN ARCHITECTURAL

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Chiveden Technical Recruitment Consultants  
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(0494) 418449 24 hr. £5.50 p.m.  
115 Watlington Road, South Milton, Hants. SO3 4BE  
(0703) 318094 (CROFTINGHAM)  
(01) 831 2434 (LONDON) (0432) 313968 (STEVENAGE)



## THE BARTON WILLMORE PARTNERSHIP

We wish to expand our London office and require the following staff to work on a variety of interesting and challenging building types.

### ARCHITECTS

graduates (RIBA) age 25-35 with proven design ability and capable of working with the minimum of supervision.

### ARCHITECTURAL TECHNICIANS

aged 25-35 should hold HNC in building and preferably be members of BIAT.

Attractive salaries and benefits, including paid overtime, to the successful applicants.

Please apply in writing with full C.V. and present salary to:  
R. B. HALL ESQ, The Barton Willmore Partnership, 6 Golden Square, London W1R 4HN

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PROJECT MANAGERS ARCHITECTS ASSISTANTS TECHNICIANS  
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Young Project Manager to work on commercial/office developments with exciting and job running ability.  
Senior Architect required for the large architectural concern. To take section over and head a small team on commercial and industrial new build and refurbishment schemes.  
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For your next career move contact us in confidence at:  
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## Darbourne & Darke

2 PROJECT ARCHITECTS required for major commercial projects a minimum of 7 years experience required as a Senior Architect designing and controlling large scale strategic developments. Candidates must be able to demonstrate ability to handle schemes from inception to completion.

TECHNICIANS also required, with a minimum of 5 years experience to prepare production drawings and information for contractors. Applicants will need to illustrate their technical knowledge and drawing competence.

6 The Green Richmond Surrey TW9 1PL

## ARCHITECT/ARCHITECTURAL TECHNICIAN

required for expanding and progressive development company based in W1 but active in all parts of Inner London. Experience of planning procedures in all London areas is essential as is the ability to work under pressure and to use own initiative.

In return we offer:  
The opportunity to join a young active team.  
Competitive remuneration.  
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Long term prospects with a growing company.

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## SWINDON

An equal opportunities employer

The Borough of Swindon, noted for its fast expansion, covers Swindon and the surrounding districts and offers an excellent example of town and country living, a thriving modern town centre and easy communications. A generous scheme is available to help relocation to this attractive part of Wiltshire and the chance to work with one of Britain's most progressive authorities.

## Environment and Technical Services Group

ARCHITECTURAL SERVICES DIVISION  
We have a continuing workload of new community, leisure and sports buildings and sheltered housing complexes for the elderly. To maintain and develop the expertise of our team we are now seeking the following staff to join the practice.

### Project Architect

(Ref 08-338)  
Scale £8,381-£12,297  
To design, implement and supervise building projects under the direction of the Group Architect. Above average design ability and the potential to organise building contracts are essential. Minimum qualification RIBA Part II or equivalent.  
Closing date: 28 November

### Architectural Assistant/Technician

(2 posts)  
(Ref 08-332; 08-322)  
Scale £5,808-£9,218  
To assist in the preparation of scheme designs, their supervision on site and all aspects of our unified workload. Minimum qualification ONC or equivalent.  
Closing date: 28 November

Application forms/further details available from the Personnel Officer, Thamesdown Borough Council, Civic Offices, Swindon, Wiltshire SN1 2JH. Tel: (0793) 810202 (24 hour answering service) quoting job reference number.  
We welcome applications irrespective of race, sex or disability.

BOROUGH OF THAMESDOWN

# APPOINTMENTS



## ASSOCIATE DESIGNATE TO £20,000 P.A.

A multi-disciplinary design group, involved in leisure/retail work, requires a young Architect or Interior Designer with 5-10 years experience who has the ability and ambition to take on a challenging opportunity.

## PROJECT ARCHITECT TO £17,000 P.A.

A practice concerned with design excellence and involved in architecture, landscape and urban design, requires Project Architects to work on university buildings, dockland redevelopments and commercial projects.

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Please send preliminary details and telephone number to:

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121 Salisbury Road  
London NW6 8RG

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We are interested in meeting newly qualified Architects and Part II students capable of developing design ideas at concept and production stages to achieve a high standard of Architecture.

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Please contact David Taylor  
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# APPOINTMENTS



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